

2. AMENDMENT/MODIFICATION NO. 49	3. EFFECTIVE DATE 30-Mar-2017	4. REQUISITION/PURCHASE REQ. NO. 1300620948	5. PROJECT NO. (If applicable) N/A
6. ISSUED BY CODE	N00167	7. ADMINISTERED BY (If other than Item 6) CODE	S2404A

NSWC, CARDEROCK DIVISION, MARYLAND  
 9500 MacArthur Blvd  
 West Bethesda MD 20817  
 lon.wang@navy.mil 301-227-3592

DCMA Manassas  
 14501 George Carter Way, 2nd Floor  
 Chantilly VA 20151

SCD: C

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code) ManTech Advanced Systems International, Inc. 12015 Lee Jackson Highway Fairfax VA 22033		9A. AMENDMENT OF SOLICITATION NO.  9B. DATED (SEE ITEM 11)  10A. MODIFICATION OF CONTRACT/ORDER NO. N00178-04-D-4080 / N00178-04-D-4080-FD04 10B. DATED (SEE ITEM 13) 30-Mar-2012
CAGE CODE 5N741 FACILITY CODE	[X]	

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended,  is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning one (1) copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)  
 SEE SECTION G

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

(*)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
<input type="checkbox"/>	
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
<input checked="" type="checkbox"/>	D. OTHER (Specify type of modification and authority) Unilateral in accordance with FAR Clause 52.232-22 Limitation of Funds

E. IMPORTANT: Contractor  is not,  is required to sign this document and return \_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  
 SEE PAGE 2

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
	Teresa L Kelly, Contracting Officer		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY /s/Teresa L Kelly (Signature of Contracting Officer)	30-Mar-2017

## GENERAL INFORMATION

The purpose of this modification is to add an increment of funding in the amount of [REDACTED]. Accordingly, said Task Order is modified as follows:

1) The total amount of funds obligated to the task is hereby increased from [REDACTED] by [REDACTED] to [REDACTED]

2) Sections B and G are revised as follows:

CLIN/SLIN	Type Of Fund	From (\$)	By (\$)	To (\$)
720102	OPN	[REDACTED]	[REDACTED]	[REDACTED]
920102	OPN	[REDACTED]	[REDACTED]	[REDACTED]

3) The total value of the order is hereby increased from [REDACTED].

4) Section G Clause entitled "SEA 5252.232-9104 ALLOTMENT OF FUNDS (May 1993)" has been revised as follows:

ITEM(s)	ALLOTTED TO COST	ALLOTTED TO FEE	PERIOD OF PERFORMANCE
4000	[REDACTED]	[REDACTED]	Through 29 March 2015
4001	[REDACTED]	[REDACTED]	Through 29 March 2015
4002	[REDACTED]	[REDACTED]	Through 29 March 2015
6000	[REDACTED]	[REDACTED]	Through 29 March 2015
6001	[REDACTED]	[REDACTED]	Through 29 March 2015
6002	[REDACTED]	[REDACTED]	Through 29 March 2015
7000	[REDACTED]	[REDACTED]	Through 29 March 2016
7101	[REDACTED]	[REDACTED]	Through 29 March 2017
7102	[REDACTED]	[REDACTED]	Through 29 March 2017
7103	[REDACTED]	[REDACTED]	Through 29 March 2017
7201	[REDACTED]	[REDACTED]	Through 8 December 2017
7202	[REDACTED]	[REDACTED]	Through 8 December 2017
9000	[REDACTED]	[REDACTED]	Through 29 March 2016
9101	[REDACTED]	[REDACTED]	Through 29 March 2017
9102	[REDACTED]	[REDACTED]	Through 29 March 2017
9103	[REDACTED]	[REDACTED]	Through 29 March 2017
9201	[REDACTED]	[REDACTED]	Through 8 December 2017
9202	[REDACTED]	[REDACTED]	Through 8 December 2017

5) The Accounting and Appropriation Data added to Section G is as follows:  
MOD 49

720102 130062094800005 [REDACTED]  
LLA :  
FF 1771810 H2SE 251 SB401 0 050120 2D 000000 A00003812459

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920102 130062094800006 [REDACTED]

LLA :

FF 1771810 H2SE 251 SB401 0 050120 2D 000000 A00003812459

MOD 49 Funding [REDACTED]

Cumulative Funding [REDACTED]

6) The end of task order performance remains unchanged at 8 December 2017.

7) The contractor is not authorized to begin performance with the work associated in TI-53-02 until the Contracting Officer and the Contracting Officers Representative have signed a copy of the TI's from the contractor.

A conformed copy of this Task Order is attached to this modification for informational purposes only.

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## SECTION B SUPPLIES OR SERVICES AND PRICES

CLIN - SUPPLIES OR SERVICES

For Cost Type Items:

Item	PSC	Supplies/Services	Qty	Unit	Est. Cost	Fixed Fee	CPFF
4000	R425	Engineering services for fixed and mobile acoustic facilities. (Fund Type - TBD)	1.0	LO			
400001	R425	Incremental Funding in the amount of [REDACTED] TI-1 (OPN)					
400002	R425	Incremental Funding in the amount of [REDACTED] TI-2 (OPN)					
400003	R425	Incremental Funding in the amount of [REDACTED] TI-3 (OPN)					
400004	R425	Incremental Funding in the amount of [REDACTED] TI-3 (OPN)					
400005	R425	Incremental Funding in the amount of [REDACTED] TI-4 (O&MN,N)					
400006	R425	Incremental Funding in the amount of [REDACTED] TI-2 (OPN)					
400007	R425	Incremental Funding in the amount of [REDACTED] . TI-04 Rev. 03 (O&MN,N)					
400008	R425	Incremental Funding in the amount of [REDACTED] TI-05 (OPN)					
400009	R425	Incremental Funding in the amount of [REDACTED] TI-06 (RDT&E)					
400010	R425	Incremental Funding in the amount of [REDACTED] TI-07 (O&MN,N)					
400011	R425	Incremental Funding in the amount of [REDACTED] TI-04-03 (O&MN,N)					
400012	R425	Incremental Funding in the amount of [REDACTED] TI-4-04 (O&MN,N)					
400013	R425	Incremental Funding in the amount of [REDACTED] TI-08 (O&MN,N)					
400014	R425	Incremental Funding in the amount of [REDACTED] TI-11 (O&MN,N)					
400015	R425	Incremental Funding in the amount of [REDACTED] TI-10 (RDT&E)					
400016	R425	Incremental Funding in the amount of [REDACTED] . TI-12 (OPN)					
400017	R425	Incremental Funding in the amount of [REDACTED] . TI-09 (OPN)					

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Item	PSC	Supplies/Services	Qty	Unit	Est. Cost	Fixed Fee	CPFF
400018	R425	Incremental Funding in the amount of [REDACTED] TI-13 (RDT&E)					
400019	R425	Incremental Funding in the amount of [REDACTED] TI-02-01 (OPN)					
400020	R425	Incremental Funding in the amount of [REDACTED] TI-02-01 (OPN)					
400021	R425	Incremental Funding in the amount of [REDACTED] TI-01 (OPN)					
400022	R425	Incremental Funding in the amount of [REDACTED] TI-14 (RDT&E)					
400023	R425	Incremental Funding in the amount of [REDACTED] . TI-04-05 (O&MN,N)					
400024	R425	Incremental Funding in the amount of [REDACTED] TI-01-02 (OPN)					
400025	R425	Incremental Funding in the amount of [REDACTED] TI-02-01 (OPN)					
400026	R425	Incremental Funding in the amount of [REDACTED] TI-04-06 (O&MN,N)					
400027	R425	Incremental Funding in the amount of [REDACTED] TI-09-01 (OPN)					
400028	R425	Incremental Funding in the amount of [REDACTED] TI-09-01 (OPN)					
400029	R425	Incremental Funding in the amount of [REDACTED] TI-04-07 (O&MN,N)					
400030	R425	Incremental Funding in the amount of [REDACTED] TI-01-03 (OPN)					
400031	R425	Incremental Funding in the amount of [REDACTED] TI-01-03 (OPN)					
400033	R425	Incremental Funding in the amount of [REDACTED] TI-14-01 (RDT&E)					
400034	R425	Incremental Funding in the amount of [REDACTED] TI-001-04 (OPN)					
400035	R425	Incremental Funding in the amount of [REDACTED] TI-001-04 (OPN)					
400036	R425	Incremental Funding in the amount of [REDACTED] TI-001-04 (OPN)					
400037	R425	Incremental Funding in the amount of [REDACTED] TI-04-08 (O&MN,N)					
400038	R425	Incremental Funding in the amount of [REDACTED] TI 14-02 (RDT&E)					
400039	R425	Incremental Funding in the amount of [REDACTED] TI 05-01 (OPN)					

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Item	PSC	Supplies/Services	Qty	Unit	Est. Cost	Fixed Fee	CPFF
400040	R425	Incremental Funding in the amount of [REDACTED] TI 01-05 (OPN)					
4001	R425	Option Year 1 - Engineering services for fixed and mobile acoustic facilities. (Fund Type - TBD)	1.0	LO	[REDACTED]	[REDACTED]	[REDACTED]
400101	R425	Incremental Funding in the amount of [REDACTED] TI 01-05 (OPN)					
400102	R425	Incremental Funding in the amount of [REDACTED] TI 02-01 (OPN)					
400103	R425	Incremental Funding in the amount of [REDACTED] TI 02-01 (OPN)					
400104	R425	Incremental Funding in the amount of [REDACTED] TI 02-01 (OPN)					
400105	R425	Incremental Funding in the amount of [REDACTED] TI 09-02 (OPN)					
400106	R425	Incremental Funding in the amount of [REDACTED] TI 15-00 -- 2410(a) Authority is hereby invoked (O&MN,N)					
400107	R425	Incremental Funding in the amount of [REDACTED]. TI 05-02 (OPN)					
400108	R425	Incremental Funding in the amount of [REDACTED] TI 016-00 '2410(a) Authority is hereby invoked' (O&MN,N)					
400109	R425	Incremental Funding in the amount of [REDACTED] TI 20-00 '2410(a) Authority is hereby invoked'- (RDT&E)					
400110	R425	Incremental Funding in the amount of [REDACTED] TI 21-00 (OPN)					
400111	R425	Incremental Funding in the amount of [REDACTED] TI 19-00 (OPN)					
400112	R425	Incremental Funding in the amount of [REDACTED] TI 18-00 (OPN)					
400113	R425	Incremental Funding in the amount of [REDACTED]. TI 17-00 (OPN)					
400114	R425	Incremental Funding in the amount of [REDACTED] TI 17-00 (OPN)					
400115	R425	Incremental Funding in the amount of [REDACTED] TI 22-00 (OPN)					
400116	R425	Incremental Funding in the amount of [REDACTED] TI 22-00 (OPN)					
400117	R425	Incremental Funding in the amount of [REDACTED] TI 14-03 '2410(a) Authority is hereby invoked'- (RDT&E)					

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Item	PSC	Supplies/Services	Qty	Unit	Est. Cost	Fixed Fee	CPFF
400118	R425	Incremental Funding in the amount of [REDACTED] TI 05-03 (OPN)					
400119	R425	Incremental Funding in the amount of [REDACTED] TI 02-02 (OPN)					
400120	R425	Incremental Funding in the amount of [REDACTED] TI 02-03 (OPN)					
400121	R425	Incremental Funding in the amount of [REDACTED]. TI 01-06 (OPN)					
400122	R425	Incremental Funding in the amount of [REDACTED] TI 023-00 (OPN)					
400123	R425	Incremental Funding in the amount of [REDACTED] TI 024-00 (OPN)					
400124	R425	Incremental Funding in the amount of [REDACTED] TI 024-00 (OPN)					
400125	R425	Incremental Funding in the amount of [REDACTED] TI 25-00 '2410(a) Authority is hereby invoked'- (RDT&E)					
400126	R425	Incremental Funding in the amount of [REDACTED] TI 024-01 (OPN)					
4002	R425	Option Year 2 - Engineering services for fixed and mobile acoustic facilities. (Fund Type - TBD)	1.0	LO	[REDACTED]	[REDACTED]	[REDACTED]
400201	R425	Incremental Funding in the amount of [REDACTED] TI 026-00 (SCN)					
400202	R425	Incremental Funding in the amount of [REDACTED]. TI 024-02 (OPN)					
400203	R425	Incremental Funding in the amount of [REDACTED] TI 027-00 (O&MN,N)					
400204	R425	Incremental Funding in the amount of [REDACTED] TI 028-00 (RDT&E)					
400205	R425	Incremental Funding in the amount of [REDACTED] TI 028-01 (RDT&E)					
400206	R425	Incremental Funding in the amount of [REDACTED]. TI 024-03 '2410(a) Authority is hereby invoked' (OPN)					
400207	R425	Incremental Funding in the amount of [REDACTED] TI 029-00 '2410(a) Authority is hereby invoked' (OPN)					
400208	R425	Incremental Funding in the amount of [REDACTED] TI 030-00 (O&MN,N)					
400209	R425	Incremental Funding in the amount of [REDACTED] TI 023-01 (OPN)					

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Item	PSC	Supplies/Services	Qty	Unit	Est. Cost	Fixed Fee	CPFF
400210	R425	Incremental Funding in the amount of ██████ TI 023-01 (OPN)					
400211	R425	Incremental Funding in the amount of ██████ TI 023-01 (OPN)					
400212	R425	Incremental Funding in the amount of ██████ TI 023-01 (OPN)					
400213	R425	Incremental Funding in the amount of ██████ TI 026-01 (SCN)					
400214	R425	Incremental Funding in the amount of ██████ TI 028-02 (RDT&E)					
400215	R425	Incremental Funding in the amount of ██████ TI 031-00 (RDT&E)					
400216	R425	Incremental Funding in the amount of ██████ . TI 032-00 (OPN)					
400217	R425	Incremental Funding in the amount of ██████ TI 033-00 (OPN)					
400218	R425	Incremental Funding in the amount of ██████ TI 023-02 (OPN)					
400219	R425	Incremental Funding in the amount of ██████ TI 023-02 (OPN)					
400220	R425	Incremental Funding in the amount of ██████ TI 024-04 (OPN)					
400221	R425	Incremental Funding in the amount of ██████ TI 032-01 (OPN)					
400222	R425	Incremental Funding in the amount of ██████ TI 023-03 (OPN)					
400223	R425	Incremental Funding in the amount of ██████ TI 034-00 (RDT&E)					
400224	R425	Incremental Funding in the amount of ██████ TI 035-00 (O&MN,N)					
400225	R425	Incremental Funding in the amount of ██████ TI 036-00 (SCN)					
400226	R425	Incremental Funding in the amount of ██████ TI 037-00 (OPN)					
400227	R425	Incremental Funding in the amount of ██████ TI 038-00 (OPN)					
4003	R425	Intentionally zeroed out during negotiations. (Fund Type - TBD)	1.0	LO	\$0.00	\$0.00	\$0.00
		Option					

For ODC Items:

Item	PSC	Supplies/Services	Qty	Unit	Est. Cost
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Item	PSC	Supplies/Services	Qty	Unit	Est. Cost
6000	R425	Base Year - Other Direct Cost (material, travel, miscellaneous, including applicable other direct costs) - Non-fee bearing. Estimated NTE base amount of [REDACTED]. (This amount is based on an estimated travel amount of [REDACTED] and material amount of [REDACTED]). (Fund Type - TBD)	1.0	LO	[REDACTED]
600001	R425	Incrementally funded in the amount of [REDACTED]. TI-1 (OPN)			
600002	R425	Incrementally funded in the amount of [REDACTED]. TI-2 (OPN)			
600003	R425	Incrementally funded in the amount of [REDACTED]. TI-3 (OPN)			
600004	R425	Incrementally funded in the amount of [REDACTED]. TI-3 (OPN)			
600005	R425	Incrementally funded in the amount of [REDACTED]. TI-4 (O&MN,N)			
600006	R425	Incrementally funded in the amount of [REDACTED]. TI-04 Rev. 3 (O&MN,N)			
600007	R425	Incrementally funding in the amount of [REDACTED]. TI-05 (OPN)			
600008	R425	Incrementally funded in the amount of [REDACTED]. TI-06 (RDT&E)			
600009	R425	Incrementally funded in the amount of [REDACTED]. TI-07 (O&MN,N)			
600010	R425	Incremental Funding in the amount of [REDACTED]. TI-04-03 (O&MN,N)			
600011	R425	Incremental Funding in the amount of [REDACTED]. TI-4-04 (O&MN,N)			
600012	R425	Incremental Funding in the amount of [REDACTED]. TI-11 (O&MN,N)			
600013	R425	Incremental Funding in the amount of [REDACTED]. TI-10 (RDT&E)			
600014	R425	Incremental Funding in the amount of [REDACTED]. TI-12 (OPN)			
600015	R425	Incremental Funding in the amount of [REDACTED]. TI-02-01 (OPN)			
600016	R425	Incremental Funding in the amount of [REDACTED]. TI-02-01 (OPN)			
600017	R425	Incremental Funding in the amount of [REDACTED]. TI-14 (RDT&E)			
600018	R425	Incremental Funding in the amount of [REDACTED]. TI-04-05 (O&MN,N)			
600019	R425	Incremental Funding in the amount of [REDACTED]. TI-02-01 (OPN)			
600020	R425	Incremental Funding in the amount of [REDACTED]. TI-04-06 (O&MN,N)			
600021	R425	Incremental Funding in the amount of [REDACTED]. TI-09-01 (OPN)			
600022	R425	Incremental Funding in the amount of [REDACTED]. TI-04-07 (O&MN,N)			
600023	R425	Incremental Funding in the amount of [REDACTED]. TI-001-04 (OPN)			
600024	R425	Incremental Funding in the amount of [REDACTED]. TI-04-08 (O&MN,N)			
600025	R425	Incremental Funding in the amount of [REDACTED]. TI-14-02 (RDT&E)			
600026	R425	Incremental Funding in the amount of [REDACTED]. TI 05-01 (OPN)			
6001	R425	Option Year 1 - Other Direct Cost (material, travel, miscellaneous, including applicable other direct costs) - Non-fee bearing. Estimated NTE base amount of [REDACTED]. (This amount is based on an estimated travel amount of [REDACTED] and material amount of [REDACTED]). (Fund Type - TBD)	1.0	LO	[REDACTED]

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Item	PSC	Supplies/Services	Qty	Unit	Est. Cost
600101	R425	Incremental Funding in the amount of [REDACTED] TI 02-01 (OPN)			
600102	R425	Incremental Funding in the amount of [REDACTED] TI 02-01 (OPN)			
600103	R425	Incremental Funding in the amount of [REDACTED] TI 09-02 (OPN)			
600104	R425	Incremental Funding in the amount of [REDACTED]. TI 15-00 --2410(a) Authority is hereby invoked (O&MN,N)			
600105	R425	Incremental Funding in the amount of [REDACTED]. TI 17-00 (OPN)			
600106	R425	Incremental Funding in the amount of [REDACTED] TI 22-00 (OPN)			
600107	R425	Incremental Funding in the amount of [REDACTED] TI 22-00 (OPN)			
600108	R425	Incremental Funding in the amount of [REDACTED] TI 02-02 (OPN)			
600109	R425	Incremental Funding in the amount of [REDACTED] TI 02-03 (OPN)			
600110	R425	Incremental Funding in the amount of [REDACTED] TI 023-00 (OPN)			
600111	R425	Incremental Funding in the amount of [REDACTED] TI 024-00 (OPN)			
600112	R425	Incremental Funding in the amount of [REDACTED] TI 024-00 (OPN)			
600113	R425	Incremental Funding in the amount of [REDACTED] TI 024-01 (OPN)			
6002	R425	Option Year 2 - Other Direct Cost (material, travel, miscellaneous, including applicable other direct costs) - Non-fee bearing. Estimated NTE base amount of [REDACTED] (This amount is based on an estimated travel amount of [REDACTED] and material amount of [REDACTED]). (Fund Type - TBD)	1.0	LO	[REDACTED]
600201	R425	Incremental Funding in the amount of [REDACTED] TI 026-00 (SCN)			
600202	R425	Incremental Funding in the amount of [REDACTED]. TI 024-02 (OPN)			
600203	R425	Incremental Funding in the amount of [REDACTED] TI 027-00 (O&MN,N)			
600204	R425	Incremental Funding in the amount of [REDACTED] TI 028-00 (RDT&E)			
600205	R425	Incremental Funding in the amount of [REDACTED]. TI 024-03 '2410(a) Authority is hereby invoked' (OPN)			
600206	R425	Incremental Funding in the amount of [REDACTED] TI 029-00 '2410(a) Authority is hereby invoked' (OPN)			
600207	R425	Incremental Funding in the amount of [REDACTED] TI 030-00 (O&MN,N)			
600208	R425	Incremental Funding in the amount of [REDACTED] TI 031-00 (RDT&E)			
600209	R425	Incremental Funding in the amount of [REDACTED] TI 032-00 (OPN)			
600210	R425	Incremental Funding in the amount of [REDACTED] TI 033-00 (OPN)			
600211	R425	Incremental Funding in the amount of [REDACTED] TI 032-01 (OPN)			
600212	R425	Incremental Funding in the amount of [REDACTED] TI 034-00 (RDT&E)			
600213	R425	Incremental Funding in the amount of [REDACTED] TI 035-00 (O&MN,N)			
6003	R425	Intentionally zeroed out during negotiations. (Fund Type - TBD)  Option	1.0	LO	\$0.00

For Cost Type Items:

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Item	PSC	Supplies/Services	Qty	Unit	Est. Cost	Fixed Fee	CPFF
7000	R425	Engineering services for fixed and mobile acoustic facilities. (Fund Type - TBD)	1.0	LO			
700001	R425	Incremental funding in the amount of [REDACTED] TI-39 (SCN)					
700002	R425	Incremental funding in the amount of [REDACTED]. TI-40 (OPN)					
700003	R425	Incremental funding in the amount of [REDACTED] TI-41 (OPN)					
700004	R425	Incremental funding in the amount of [REDACTED] TI-42 (OPN)					
700005	R425	Incremental funding in the amount of [REDACTED] TI-43 (RDT&E)					
700006	R425	Incremental funding in the amount of [REDACTED] TI-44. 10 USC 2410(a) is hereby invoked. (O&MN,N)					
700007	R425	Incremental funding in the amount of [REDACTED] TI-41-01 (OPN)					
700008	R425	Incremental funding in the amount of [REDACTED] TI-41-01 (OPN)					
700009	R425	Incremental funding in the amount of [REDACTED] TI-42-01 (OPN)					
700010	R425	Incremental funding in the amount of [REDACTED] TI-42-01 (OPN)					
700011	R425	Incremental funding in the amount of [REDACTED]. TI-45-00 (O&MN,N)					
700012	R425	Incremental funding in the amount of [REDACTED] TI-45-00 (O&MN,N)					
700013	R425	Incremental funding in the amount of [REDACTED]. TI-46-00 (SCN)					
700014	R425	Incremental funding in the amount of [REDACTED]. TI-41-02 (OPN)					
700015	R425	Incremental funding in the amount of [REDACTED] TI-41-02 (OPN)					
700016	R425	Incremental funding in the amount of [REDACTED] TI-41-02 (OPN)					
700017	R425	Incremental funding in the amount of [REDACTED] TI-41-02 (OPN)					
700018	R425	Incremental funding in the amount of [REDACTED] TI-45-01 (O&MN,N)					
700019	R425	Incremental funding in the amount of [REDACTED] TI-39-01 (OPN)					

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Item	PSC	Supplies/Services	Qty	Unit	Est. Cost	Fixed Fee	CPFF
700020	R425	Incremental funding in the amount of [REDACTED] TI-40-01 Deobligation of [REDACTED] via Mod 40. TI-52-00 (FMS)					
700021	R425	Incremental funding in the amount of [REDACTED] TI-40-01 (FMS)					
700022	R425	Incremental funding in the amount of [REDACTED] TI-39-02 (OPN)					
700023	R425	Incremental funding in the amount of [REDACTED] TI-40-02 (OPN)					
700024	R425	Incremental funding in the amount of [REDACTED] TI-41-04 (OPN)					
700025	R425	Incremental funding in the amount of [REDACTED] TI-44-01 (RDT&E)					
700026	R425	Incremental funding in the amount of [REDACTED] TI-41-04 (OPN)					
700027	R425	Incremental funding in the amount of [REDACTED] TI-42-02 (OPN)					
700028	R425	Incremental funding in the amount of [REDACTED] TI-41-04 (OPN)					
7100	R425	Engineering services for fixed and mobile acoustic facilities. (Fund Type - OTHER)	1.0	LO	\$0.00	\$0.00	\$0.00
7101	R425	Engineering services for fixed and mobile acoustic facilities (Non-Calibration, PSC Code R425) (Fund Type - OTHER)	1.0	LO	[REDACTED]	[REDACTED]	[REDACTED]
710101	R425	Incremental funding in the amount of [REDACTED] TI-048 (OPN)					
710102	R425	Incremental funding in the amount of [REDACTED] . TI-050-01 (OPN)					
710103	R425	Incremental funding in the amount of [REDACTED] TI-051-02, TI-050-02 (OPN)					
710104	R425	Incremental funding in the amount of [REDACTED] TI-051-01 (O&MN,N)					
710105	R425	Incremental funding in the amount of [REDACTED] TI-52-00 Reobligation of [REDACTED] from TI-43-03 via Mod 40. (FMS)					
710106	R425	Incremental funding in the amount of [REDACTED] TI-048-01 (OPN)					
7102	R425	Engineering services for fixed and mobile acoustic facilities (Calibrations only, PSC Code R425) (Fund Type - OTHER)	1.0	LO	[REDACTED]	[REDACTED]	[REDACTED]

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Item	PSC	Supplies/Services	Qty	Unit	Est. Cost	Fixed Fee	CPFF
710201	R425	Incremental funding in the amount of [REDACTED]. TI-049-01 (OPN)					
7103	AD25	Engineering services for fixed and mobile acoustic facilities (Non-Calibration, PSC Code AD25) (Fund Type - OTHER)	1.0	LO	[REDACTED]	[REDACTED]	[REDACTED]
710301	AD25	Incremental funding in the amount of [REDACTED] TI-047 (RDT&E)					
7200	R425	Engineering services for fixed and mobile acoustic facilities. This is an unfunded holding CLIN, the amount of this CLIN will be reduced as additional CLINs are added/funded. (Fund Type - OTHER)	1.0	LO	[REDACTED]	[REDACTED]	[REDACTED]
7201	R425	Engineering services for fixed and mobile acoustic facilities (Non-Calibration, PSC Code R425). Sponsor: PMS 401. (Fund Type - OTHER)	1.0	LO	[REDACTED]	[REDACTED]	[REDACTED]
720101	R425	Incremental funding in the amount of [REDACTED] in support of TI-53. (OPN)					
720102	R425	Incremental funding in the amount of [REDACTED] in support of TI-53-02. (OPN)					
7202	AD25	(AD25) Engineering services for fixed and mobile acoustic facilities. Sponsor: Office of Naval Intelligence (ONI). (Fund Type - OTHER)	1.0	LO	[REDACTED]	[REDACTED]	[REDACTED]
720201	AD25	Incremental Funding in the amount of [REDACTED]. TI-54-01 (RDT&E)					

For ODC Items:

Item	PSC	Supplies/Services	Qty	Unit	Est. Cost
9000	R425	Other Direct Cost (material, travel, miscellaneous, including applicable other direct costs) - Non-fee bearing. Estimated NTE base amount of [REDACTED] (Fund Type - TBD)	1.0	LO	[REDACTED]
900001	R425	Incremental funding in the amount of [REDACTED]. TI-39 (SCN)			
900002	R425	Incremental funding in the amount of [REDACTED] TI-40 (OPN)			
900003	R425	Incremental funding in the amount of [REDACTED] TI-41 (OPN)			
900004	R425	Incremental funding in the amount of [REDACTED] TI-42 (OPN)			
900005	R425	Incremental funding in the amount of [REDACTED]. TI-43 (RDT&E)			
900006	R425	Incremental funding in the amount of [REDACTED] TI-44. 10 USC 2410(a) is hereby invoked. (O&MN,N)			

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Item	PSC	Supplies/Services	Qty	Unit	Est. Cost
900007	R425	Incremental funding in the amount of [REDACTED] TI-41-01 (OPN)			
900008	R425	Incremental funding in the amount of [REDACTED] TI-42-01 (OPN)			
900009	R425	Incremental funding in the amount of [REDACTED] TI-42-01 (OPN)			
900010	R425	Incremental funding in the amount of [REDACTED] TI-45-00 (O&MN,N)			
900011	R425	Incremental funding in the amount of [REDACTED]. TI-45-00 (O&MN,N)			
900012	R425	Incremental funding in the amount of [REDACTED] TI-46-00 (SCN)			
900013	R425	Incremental funding in the amount of [REDACTED] TI-41-02 (OPN)			
900014	R425	Incremental funding in the amount of [REDACTED]. TI-41-02 (OPN)			
900015	R425	Incremental funding in the amount of [REDACTED] TI-41-02 (OPN)			
900016	R425	Incremental funding in the amount of [REDACTED]. TI-41-02 (OPN)			
900017	R425	Incremental funding in the amount of [REDACTED] TI-39-01 (OPN)			
900018	R425	Incremental funding in the amount of [REDACTED]. TI-40-01 Deobligation of [REDACTED] via Mod 40. TI-52-00 (FMS)			
900019	R425	Incremental funding in the amount of [REDACTED]. TI-40-01 (FMS)			
900020	R425	Incremental funding in the amount of [REDACTED] TI-39-02 (OPN)			
900021	R425	Incremental funding in the amount of [REDACTED] TI-40-02 (OPN)			
900022	R425	Incremental funding in the amount of [REDACTED]. TI-41-03 (OPN)			
900023	R425	Incremental funding in the amount of [REDACTED] TI-42-02 (OPN)			
9100	R425	ODC in support of CLIN 7100. Other Direct Cost (material, travel, miscellaneous, including applicable other direct costs) - Non-fee bearing. (Fund Type - OTHER)	1.0	LO	\$0.00
9101	R425	ODC in support of CLIN 7101. Other Direct Cost (material, travel, miscellaneous, including applicable other direct costs) - Non-fee bearing. (PSC Code R425) (Fund Type - OTHER)	1.0	LO	[REDACTED]
910101	R425	Incremental funding in the amount of [REDACTED] TI-048 (OPN)			
910102	R425	Incremental funding in the amount of [REDACTED] TI-050 (OPN)			
910103	R425	Incremental funding in the amount of [REDACTED] (OPN)			
910104	R425	Incremental funding in the amount of [REDACTED] TI-051-01 (O&MN,N)			
910105	R425	Incremental funding in the amount of [REDACTED]. TI-52-00 Reobligation from TI-40-03 via Mod 40. (FMS)			
910106	R425	Incremental funding in the amount of [REDACTED] TI-048-01 (OPN)			
9102	R425	ODC in support of CLIN 7102. Other Direct Cost (material, travel, miscellaneous, including applicable other direct costs) - Non-fee bearing. (Calibrations only, PSC Code R425) (Fund Type - OTHER)	1.0	LO	[REDACTED]
910201	R425	Incremental funding in the amount of [REDACTED] TI-049-01 (OPN)			
9103	AD25	ODC in support of CLIN 7103. Other Direct Cost (material, travel, miscellaneous, including applicable other direct costs) - Non-fee bearing. (PSC Code AD25) (Fund Type - OTHER)	1.0	LO	[REDACTED]

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Item	PSC	Supplies/Services	Qty	Unit	Est. Cost
910301	AD25	Incremental funding in the amount of [REDACTED] TI-047 (RDT&E)			
9200	R425	ODC in support of CLIN 7200. Other Direct Cost (material, travel, miscellaneous, including applicable other direct costs) - Non-fee bearing. This is an unfunded holding CLIN, the amount of this CLIN will be reduced as additional CLINs are added/funded. (Fund Type - OTHER)	1.0	LO	[REDACTED]
9201	R425	ODC in support of CLIN 7101. Other Direct Cost (material, travel, miscellaneous, including applicable other direct costs) - Non-fee bearing. (PSC Code R425) (Fund Type - OTHER)	1.0	LO	[REDACTED]
920101	R425	Incremental funding in the amount of [REDACTED] in support of TI-53. (OPN)			
920102	R425	Incremental funding in the amount of [REDACTED] in support of TI-53-02. (OPN)			
9202	R425	ODC in support of CLIN 7102. Other Direct Cost (material, travel, miscellaneous, including applicable other direct costs) - Non-fee bearing. (PSC Code R425) (Fund Type - TBD)	1.0	LO	[REDACTED]
920201	R425	Incremental funding in the amount of [REDACTED] in support of TI-54-01. (RDT&E)			

Note 1: The fee percentage is applied at the following rates:

CLIN 4000 - [REDACTED]  
 CLIN 4001 - [REDACTED]  
 CLIN 4002 - [REDACTED]  
 CLIN 7000 - [REDACTED]

CLIN 7100 series - [REDACTED]

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## SECTION C DESCRIPTIONS AND SPECIFICATIONS

### STATEMENT OF WORK

This is a performance-based acquisition to obtain services in support of the Navy's Submarine and Surface Ship Signatures Program and is structured around the results to be achieved as opposed to the manner by which the work is to be performed. The effort performed hereunder will be evaluated in accordance with the performance standards/acceptable quality levels described below in the "Performance Requirements Summary" and the evaluation methods described in provision CAR H09 in Section H. The tasking under this Statement of Work falls under PSC codes R425 and AD25 depending on the specific tasking being performed.

### 1.0 INTRODUCTION

The Naval Surface Warfare Center, Carderock Division (NSWCCD) is the Navy's principal laboratory for ship signature programs, ship measurement programs, ship silencing programs, Acoustic Intelligence (ACINT) data acquisition, processing, analysis and certification for submarine and surface ship total ship signatures. NSWCCD coordinates these efforts and is responsible for the design, development, prototyping, operation and maintenance of fixed and mobile facilities for data collection, measurement and evaluation of model-scale and full-scale evaluations at NSWCCD and other facilities dedicated to submarine and surface ship testing. In addition to the measurements collected at the facilities, shipboard systems are employed concurrently to collect acoustic, vibration and other signature information to support the overall vehicle evaluation. Various types of United States Naval Ships (USNS) are intended to be the focus of efforts described herein. These ships currently include: SSNs, SSBNs, SSGNs, SEAWOLF Class, U.S. Navy Surface Combatant and Surveillance Ships, Coast Guard Patrol Ships and emergent littoral special mission vehicles. These "special vehicles/vessels" may involve, but are not limited to, small manned or unmanned Submarine Unmanned Vehicle / Autonomous Underwater Vehicle / Remotely Operated Vessels (SUV/AUV/ROV), acoustic and non-acoustic augmented targets, test and transitional vessels that may operate at-sea, on land and in air. NSWCCD also provides services, technical engineering, testing and evaluation to U.S. Allies, NATO and other marine platforms, as so designated. Fleet requirements for the advancement of measurement capabilities are met through the application of COTS technologies and customized unique software and hardware. NSWCCD also applies emerging advanced technologies in new systems and processes to ensure that state of the art capabilities are produced. The contractor shall provide services for the operation and maintenance of the systems and for the design, fabrication, assembly, test and evaluation of new systems in support of the NSWCCD requirements. These efforts will be performed at designated U.S. and foreign shore based facilities as well as at-sea aboard various types and classes of test vehicles.

### 1.1 IMPLEMENTATION

The contractor shall provide the personnel, material and secure facilities necessary to accomplish work within the task areas described in this Statement of Work (SOW). These efforts will be implemented through the issuance of written Technical Instructions (TIs). NSWCCD, through the Contracting Officer's Representative (COR), will provide the classified information, as required and technical Government Furnished Information (GFI) data necessary for task performance and will provide information on ship schedules for those tasks requiring visits to fleet units. The Signature Program efforts may include, but are not limited to: submarines, surface ships, unmanned and manned submersibles and/or surface vessels, combat systems, acoustic and non-acoustic sensors, processing systems, information technology transfer/exchange, Information Assurance (IA), ForceNET/GIG compatibility and security, data fusion, classified and unclassified data exchange/communications, contributions to force protection/projection via an integrated signal tactical situational picture and awareness, Joint Warfare operations supporting secure and seamless exchange of acoustic and/or non-acoustic data, analytical evaluation of target strength, acoustic and magnetic signatures, active and passive sensor(s) data fusion and those items/efforts so designated to meet the asymmetric threat.

### 2.0 SCOPE

The contractor shall provide all services, material and equipment required to accomplish the work specified in the following tasks. TIs will be within the scope of the following task areas:

#### 2.1 PORTABLE ACOUSTIC SIGNAL PROCESSING SYSTEMS

In order to support the diverse signature evaluation requirements for current and new systems and unique



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measurements, the contractor shall provide, operate, and maintain multiple portable signal processing systems cleared to the SECRET level. These systems shall interface to, and acquire data from, all current Navy acoustic array systems, both analog and digital. These systems include, but are not limited to: the ARCI sonar systems in their entirety; all submarine towed arrays: TB-16 (all versions), TB-23 (all versions), TB-29/29A (all versions), TB-34, Multi Function Towed Array (MFTA), TB-33, and the current developmental arrays.

These array processing systems are integral to meet Navy CONOPS and must maintain this functionality. They shall be available for immediate use and be a Non-Developmental Item (NDI).

These systems shall be used to maintain consistent Towed Array calibrations for all Navy towed array and sonar assets for submarines and surface ships, as required. To support this requirement, these systems shall be able to perform tactical beam-forming as ancillary sonar to ARCI, the main sonar system.

These systems shall provide the capability to verify proper towed array functionality in order to deliver an array to a deploying platform meeting Fleet scheduling requirements.

Furthermore, the systems shall be easily configurable to support specific towed system acceptance tests for digital acoustic calibration, electronic and coherent noise performance, advanced data analysis and the measurement of self-noise and signal receiving characteristics for tactical apertures and wideband sensors.

Given the rapid introduction of towed, hull and off-board sensor technology and the application of associated data processing streams, it may become necessary to provide for the timely and competitive prototyping, fabrication and initial production of sensors and companion processing technologies. Maximum use of COTS/GOTS technologies is envisioned and Open Architecture (OA) / Open Source (OS) code will be implemented. These systems shall be portable towed array processing systems for high band-width towed arrays. These developmental systems will enable the Navy to deliver arrays to the Fleet to meet emergent requirements, to include tactical qualitative and Acoustic Intelligence (ACINT) data collection.

These portable acoustic signal processing systems shall be made available to accomplish the Statement of Work with the following minimum characteristics:

**Physical Size** - These processing systems shall be portable for easy transport and installation in shore-based laboratories or aboard ships for at-sea operations. Therefore these systems must meet the size requirements to fit through a submarine hatch, and meet all safety and environmental health standards.

**Power Requirements** – These processing systems shall operate on standard shipboard buss power.

**Analog Interface** – These processing systems shall support all analog legacy array systems and other single sensors via COTS/MOTS analog-to-digital signal acquisition systems.

**Digital Interface** – These processing systems shall have the ability to incorporate all COTS/MOTS digital communication acquisition interfaces as are industry standard. These digital interfaces shall also include Navy standard use of Manchester serial encoding, alternate mark inversion, and Towed Array Integral Product Team (TAIPT).

**Data Acquisition** – Data acquisition and archiving shall be performed real time. Data transmissions shall meet all Joint Command Intelligence Directives (JCIDS), Information Assurance (IA) and OA for submarine systems.

**Processing Capabilities** – The processing systems shall cover the following:

Auto-Power Spectrum

Cross-Power Spectrum

Beamforming

Wavenumber/Frequency (K-Omega)

Transient Processing

Data Storage

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## Data Output

### System Program Disks.

The system shall be easily configurable to support specific towed system acceptance tests for digital and analog calibration; electronic and coherent noise advanced data analysis, acoustic calibration and self-noises.

The contractor shall maintain and provide the operation of these systems in support of all testing and trials, as required.

## 2.2 SUBMARINE, SURFACE SHIP AND VARIOUS REMOTE VESSELS ACOUSTIC TRIALS PROGRAM

The contractor shall assist in data acquisition, analysis and reporting of radiated-noise/far-field acoustic signatures during submarine and surface ship acoustical trials; develop recommendations for test and evaluation of ship systems and machinery components; reduce and compile far-field signature levels into report-ready formats and train a ship's force in onboard, acoustic measurement techniques. The contractor shall also assist in maintaining acoustic life cycle tracking of individual submarines; ensure objectives of the Submarine Acoustic Signatures Maintenance Program (SASMP) are fully accomplished; support preparation, conduct and documenting of signature trials using current and future measurement systems, and assess the effectiveness of ship silencing features incorporated into all classes of submarines. Furthermore, the contractor shall assist NSWCCD in assessments of design options for incorporation of innovative and cost-effective silencing technologies into future naval combatants and perform research studies of submarine quieting techniques and ship design.

Efforts may include, but are not limited to:

- 2.2.1 Radiated noise measurements, analysis and reporting
- 2.2.2 Submarine/Surface ship Detection and Detectability (D&D) and avoidance studies
- 2.2.3 Submarine/Surface ship noise source localization, analysis and recommendation studies
- 2.2.4 Oceanographic research vessel/hydrographic survey vessel analysis and support
- 2.2.5 Submarine and surface ship silencing effectiveness and target strength analysis
- 2.2.6 Transient/non-transient noise studies
- 2.2.7 Mammal/sea life covert/active monitoring and analysis
- 2.2.8 Own ship's noise monitoring and analysis
- 2.2.9 Vibration Monitoring Program (VMP) and Fleet Maintenance Activity (FMA) data analysis and studies
- 2.2.10 Acoustic/signature trial direction analysis and support
- 2.2.11 Acoustic Ranging Systems support
- 2.2.12 Low Frequency (LF) target strength studies and analysis
- 2.2.13 Secure database management and fusion system development and maintenance
- 2.2.14 Integrated/fused tactical picture and decision aid
- 2.2.15 Acoustic/non-acoustic activated explosive devices (MINES)
- 2.2.16 Acoustic/non-acoustic countermeasure analysis and studies

## 2.3 ENGINEERING/TECHNICAL SUPPORT OF THE NAVY SURFACE SHIP RADIATED NOISE MEASUREMENT (SSRNM)

The contractor shall provide engineering and tactical support services in support of the SSRNM acoustic trials. Efforts shall include engineering and technical support for the planning, conduct and execution of the SSRNM and

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other full-scale ship acoustic trials. Specific efforts shall include operation of the trial ranging/tracking system to ensure that acoustic run geometries are maintained in accordance with agenda requirements; coordination with ship's force to ensure that ship operating conditions (such as speed, configuration and machinery lineups) are in accordance with agenda requirements; coordination with measurement and analysis personnel to ensure that acoustic problems are documented and that information on acoustic problems is transmitted to all on-site activities involved with problem resolution and, in trial planning stages, to develop agenda inputs based on the given technical requirements. The contractor shall conduct analysis of Fleet Sonar Self-Noise (FSSN) and provide engineering services in the analysis of sonar self noise submitted by naval fleet assets. The analyses shall include the generation of a summary report and naval messages detailing the results and any corrective action required. Additionally, the contractor shall be required to provide vulnerability calculations and estimations of counter detection ranges for mine, torpedo and Improvised Explosive Device / Remote Operated Device (IED/ROD) through utilization/development and updates to the Ship Explosive Acoustic SEARange software. If required, the contractor shall provide engineering and technical services in the specialized/asymmetric areas of detection, counter-detection, avoidance and kill chain calculations for a variety of platforms and combat systems, acoustic/non-acoustic vulnerability algorithms for U.S. and foreign navies.

#### 2.4 DATA FUSION/CONNECTIVITY AND REAL-TIME DATA EXCHANGE

The contractor shall assist the Navy in reviewing the goals of the Navy Research, Development, Test and Evaluation (RDT&E), acquisition programs and full scale manufacturing, the surface ship and submarine acoustic electromagnetic measurement programs, conform to the standards of the Navy for secure data transmission and IA and develop recommendations for applying advanced measurement technology and COTS components to achieve program objectives and maintain current Navy standards. IA areas at-sea, in littorals or in port include intrusion analysis, IA operations and training, investigative analysis, security system software and secure network design, vulnerability assessments and independent Inspection, Validation and Verification (IV&V). The contractor shall assist in the evaluation and validate the performance benefit to be achieved and provide a cost-benefit analysis including life cycle costs, supportability, obsolescence and future upgrade paths. Utilization and cross application of already developed technology and systems for model-scale, full-scale and shipboard systems for commonality shall also be emphasized.

#### 2.5 SIGNATURES TRIALS SUPPORT

The contractor shall provide the preparation, conduct and documentation of signature trials using current and future signatures measurement systems such as those located at the Atlantic Undersea Test and Evaluation Center (AUTEC), South Tongue of the Ocean Acoustic Measurement Facility (STAFAC), South Florida Test Facility (SFTF), Southeast Alaska Acoustic Measurement Facility (SEAFAC) and unique measurement platforms. The contractor shall provide support with portable systems such as Ancillary Towed Array Telemetry Error & Noise Detection System (ATTENDS), Advanced Dual Towed Array Simulator (ADTAS) and Littoral Tactical/Towed Array System (LTAS) Phases I, II and/or III. This support shall include developing trial agenda inputs, specialized processing systems and test/simulators/stimulators, conducting pre-trial checks, calibrations, installations and deployments. Specific tasks include operating data acquisition and secure high-speed data transmission systems, modifying/editing acquisition and processing software, maintaining and operating systems, validating data and documenting the test results. The contractor shall perform preventative and corrective maintenance on signature systems and perform post-trial reduction and reporting.

#### 2.6 ACOUSTIC/NON-ACOUSTIC TEST RANGES, ELECTRONICS, OPTICAL AND PROCESSING SYSTEMS

The contractor shall provide the design, engineering, planning, preparation, in-situ implementation/installation and documentation in support of various CONUS/Non-CONUS acoustic and non-acoustic test ranges. These efforts may include extensive design and engineering of state-of-the-art processing systems, sensors and sensor technologies, magnetic, RADAR, IR profiling, data fusion, classified and unclassified communication linkage, information assurance, real time data exchange and analysis, and acoustic signature measurements; either underway, in-port or static as designated by NSWCCD. Efforts may include the deployment of a Mobile Acoustic Range (MAR), spar-buoys, sono-buoys, bottom and/or water column deployed sensors and high speed undersea acoustic communications and to develop, deploy and monitor a set of passive acoustic and covert/active marine mammal/sea life monitoring technology for the detection and localization of marine mammal sound signatures. The contractor shall provide all relevant documentation, reports, analyses and recommendations as designated by the COR.

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## 2.7 MODEL-SCALE MEASUREMENT SYSTEMS DESIGN

The contractor shall investigate new technology initiatives and determine their applicability to existing model-scale experiment systems for accomplishing submarine and surface ship model hydro-acoustics, hydrodynamics, structural acoustics and electromagnetic R&D. Every effort shall be made to leverage COTS technologies, open source, published source, OA and existing Department of Defense (DOD) investment in similar efforts and products, which includes studies, modeling, competitive prototyping and validation on Large Scale Vehicles (LSV), Advanced Tracking and Control System (ATACS), Radiated Noise Analysis Terminal (RNAT) and Onboard Data Acquisition System (ODAS). The contractor shall develop concepts for candidate systems and system components; analyze technical, time and cost risks; assess long-term performance and reliability benefits; and conduct trade-off studies that result in specific candidate design recommendations for system in-water, shore facility and model located elements. The contractor shall analyze the projected performance of candidate systems and make appropriate choices where design trade-offs exist. Design specifications shall be developed that include all necessary quantitative parameters and quality assurance provisions that relate to data acquisition, processing, display and recording element design and fabrication. The contractor shall perform detailed system, subsystem and component designs and conduct design reviews. Complete documentation packages shall be prepared suitable for the fabrication, assembly, integration/interfacing and testing of model-scale experiment measurement systems. The contractor shall prepare interface control drawings and specifications as well as design the interface components and devices IAW specification parameters.

## 2.8 COMPETITIVE “PROTOTYPE,” INDEPENDENT SYSTEM VALIDATION, VERIFICATION (IV&V)

The contractor shall, in accordance with specific Technical Instructions (TI), have the capability and capacity to fabricate, manufacture, assemble, test and validate “prototype” designs, materials, solutions, equipment, test sets, acoustic and non-acoustic sensors, arrays, processors and other elements to satisfy the TI. All procedures, processes and deliverables must comply with all Department of Defense (DoD) instructions and directives as well as Navy policies, procedures and instructions. Quality Assurance (QA) and control must be maintained and all resulting deliverables must meet and/or exceed industry standards for QA, for example – CMMI L3, Lean Sigma, ISO standards and/or equivalent industry standards. Every effort shall be made to leverage the benefits of commercial products, reuse of components and software; modular design elements should be incorporated when/where it is cost-effective and all data rights shall be conveyed to the Navy. Maximum use of unlimited data rights and licensing should be pursued. The terms and conditions of this contract shall be flowed down to any proposed subcontractors. Cost-effectiveness and life cycle support costs will be addressed and be a determining factor in providing any solution. The acceptance of all products/deliverables will be defined by the respective TI.

## 2.9 FULL-SCALE MEASUREMENT SYSTEM DESIGN

The contractor shall investigate new technology initiatives and determine their applicability to existing full-scale experiment systems for accomplishing submarine and surface ship hydro-acoustics, hydrodynamics, structural acoustics and electromagnetic R&D, including hydrophone monitoring systems and sonar self noise field systems. Every effort shall be made to leverage COTS technologies and existing DOD investment in similar efforts and products. The contractor shall develop concepts for candidate systems and system components; analyze technical, time and cost risks; assess long-term performance and reliability benefits and conduct trade-off analyses that result in specific candidate design recommendations for system in-water, shore facility and platform located elements. The contractor shall analyze the projected performance of candidate systems and make appropriate choices where design trade-offs exist. Design specifications shall be developed that include all necessary quantitative parameters and quality assurance provisions that relate to data acquisition, processing, display, recording element design and fabrication, as well as high speed, secure and real-/near-real time data transmission. The contractor shall perform detailed system, subsystem and component designs and conduct design reviews. Complete documentation packages shall be prepared suitable for the fabrication, assembly, integration and testing of full-scale experiment measurement systems. These systems shall encompass various and numerous classes of ships, submarines, Coast Guard and other elements associated with overseas operations and homeland security. Analyses of the technical requirements for interfacing with existing measurement systems and facilities shall be performed. The contractor shall prepare interface control drawings and specifications and design the interface components and devices IAW specification parameters.

## 2.10 SENSORS AND SENSOR SUITES

The contractor shall provide systems engineering, technical and program management documentation support and

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acoustical Test and Evaluation (T&E) support for the following tactical and surveillance sonar sensors and sensor suites: TB-16B/D/E/F/G, TB-23, TB-29/29A/29RL, TB-33, TB-34, TB-16 Special Towed Array (STA), all hull mounted sensors; various surface sonar suites including SQR-19, SQQ-89 series, MFTA, Integrated Undersea Surveillance System (IUSS), Surveillance Towed Array Sonar System (SURTASS), Twin Line TB-29A; bottom/sail mounted and/or floating towed arrays for submarine and surface ship sonar suites, and future array configurations. The contractor shall be knowledgeable in all phases of LTAS: Phase I, II and III. T&E support shall include the organization and planning of system tests at Navy research facilities as well as aboard Navy research vessels, submarines and surface ships; preparation of detailed test plans and procedures; preparation and installation of test equipment; test conduct; secure high speed data transmission between Navy sites and the processing, analysis and documentation of test results. The contractor shall utilize the acoustic signal processing systems specified in Section 2.1 of this SOW, to perform the measurements and post-test data processing necessary to analyze the test data and prepare test reports.

The contractor shall provide systems engineering, technical and program management documentation support and T&E support for fixed and mobile sensor systems. This shall include the Shallow Water Array Performance (SWAP) facilities at SFTF.

## 2.11 SHIPBOARD SYSTEMS DESIGN, APPLICATION, FABRICATION AND IMPLEMENTATION

The contractor shall investigate new technologies and COTS based initiatives and determine their applicability to existing shipboard systems for accomplishing submarine and surface ship platform noise, sonar self noise, sonar system performance and combat weapons system support data acquisition, secure high speed data transmission and data distribution systems. Current data acquisition/analysis systems, ranging systems, towed array simulators, stimulators and test sets will be provided as GFI/GFE. The contractor shall develop concepts for candidate systems and system components; analyze technical, time and cost risks; assess long-term performance and reliability benefits and conduct trade-off analyses that result in specific candidate design recommendations for system platform-located and off-board elements. Extensive use and application of "digital" components and next generation commercial technologies is envisioned.

The contractor shall analyze the projected performance of candidate systems and make appropriate choices where design trade-offs exist. Performance specifications shall be developed that include all necessary quantitative parameters and quality assurance provisions that relate to data acquisition, processing, display and recording element design and fabrication. The contractor shall perform detailed system, subsystem and component designs and conduct design reviews (e.g., Preliminary Design Review and Critical Design Review (PDR/CDR). Complete documentation packages shall be prepared suitable for the fabrication, assembly, integration and testing of full-and/or model-scale experiment measurement systems. Analyses of the technical requirements for interfacing with new and existing shipboard measurements systems shall be performed.

The contractor shall prototype, fabricate, assemble and integrate system interface component elements and devices. The contractor shall perform pre-delivery performance demonstration tests IAW system design and quality assurance specifications. System spare parts shall be delivered. The developed systems and subsystem components shall be packaged and shipped as designated while system support, repair and refurbishment shall be supplied. The contractor shall develop and deliver drawings and support documentation for system installation, operation, maintenance and repair. For product supportability, best commercial practice will be implemented.

The contractor shall prepare Interface Control Drawings (ICD), Interface Requirement Specifications (IRS) and other drawings/mock-ups as required. The contractor shall design interface components and devices IAW performance parameters and requirements as called out in the TIs and shall qualify the ability of these systems to meet these performance parameters and requirements.

## 2.12 SYSTEM PRODUCTION ACQUISITION AND DATA DISTRIBUTION SYSTEMS

The contractor shall develop and deliver detailed system specifications and documentation to support the SeaPower21 and Net-Centric Warfare efforts. The contractor shall support the acquisition of acoustic sensors, networks and measurement, recording, data distribution and processing systems by the Navy (e.g., Tactical Information Distribution System (TIDS), Submarine Warfare Federated Tactical System (SWFTS), Submarine Local Area Network (SubLAN), Tactical LAN (TacLAN), IA, CAINS, NSPS and LTAS) and OA Maintenance Free Operating Period (MFOP). The contractor shall also perform system design and status reviews as required and perform analyses relative to the specifications of the Navy's goals.

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## 2.13 NAVY ENTERPRISE SOLUTIONS

The contractor shall provide support services, academia subject experts and any specialists required to support various executive working groups, enterprise-wide review, analysis and recommendations for the submarine, surface and designated warfare enterprises and enterprise solutions. These efforts may include, but are not limited to, acoustic and non-acoustic warfare solutions, acoustic sensor(s), C3I/C4I systems engineering, combat/ship systems acquisition reforms, prototyping, development, contract analysis and recommendations, COTS/GOTS/MOTS or some combination thereof, support and recommendations in pursuit of cost and operational effective solutions across multiple Domains/Enterprises in addressing asymmetric and/or nation-on-nation warfare.

In order to reduce costs, alternative methods of maintenance and distance support will be explored, such as the MFOP program. These programs aim to reduce costs by implementing embedded spares and utilizing distance support for maintenance activities, thereby reducing training requirements and increasing total system up time for the Surface Warfare Enterprise (SWE).

Additionally, efforts may address impact on fleet operations, acquisitions, programs and costs relative to DOD, Navy, Congressional and/or Executive orders/mandates. It is imperative that no conflict of interest exists and that transparency of operations, recommendations and analysis are in agreement with NSWCCD COR and all applicable clauses attached/referenced herein.

## 2.14 INFRASTRUCTURE AND FACILITY SUPPORT

The contractor shall provide program management support services for executing acoustic, sonar and ship silencing programs including the preparation, organization, collection, evaluation, review and revision of program documentation plans for facility asset analysis supporting the Signatures Directorate mission areas. The information needed includes workforce data, facility data, capital procurement data and operating costs. The contractor shall provide support in the development and maintenance of high speed, secure, real-/near real-time data transmission systems between all facilities supporting mission areas. Moreover, the contractor shall provide support in the development and preparation of reports, briefings, plans of action and milestone charts.

## 2.15 SUBMARINE AND SURFACE SHIP SILENCING EFFECTIVENESS

The contractor shall assess the effectiveness of the Submarine and Surface Ship Silencing Programs and identify silencing needs for operational and future designed ships. Included, but not limited to, are the analysis, evaluation and reporting of radiated, sonar self- and structure-borne noise full scale trials and Technical Onboard Monitoring Assist (TOMA) results for trending of class noise deficiencies. Using empirical and modeled data, coupled with the Naval Sea Systems Command (NAVSEA), Coast Guard and Type Commander (TYCOM) Ship Alteration program requirements, the contractor shall project and recommend a long range noise deficiency correction program for improving ships' signature through the life of all operating ships.

Using data from full scale trials, the contractor shall evaluate the effectiveness of existing transfer functions as a function of frequency, absolute sound pressure levels, bandwidth and localization and provide recommended improvements for accuracy and adequacy to support noise monitoring programs. The contractor shall assist in the Hull Vibration Monitoring Program (HVMP) and the Machinery Vibration Monitoring Program (MVMP) by performing detailed analyses of data provided from these programs providing recommendations to NSWCCD, NAVSEA (including PEOs), the Coast Guard and Maritime Administration, and assists the Fleet in troubleshooting onboard noise deficiencies as required by the TIs.

The contractor shall provide direct technical, programmatic and administrative support to the Fleet by developing data necessary for the detection and detection susceptibility requirements. Direct fleet support for the resolution of technical discrepancies onboard ships, within Continental United States (CONUS) and ports outside CONUS shall be provided. The contractor shall provide direct support for the improvement for the Sonar Tactical Decision Aid (STDA) and for the Acoustic Signature Maintenance Log (ASML) Programs. The contractor shall review existing models as they apply to these data management systems and provide recommendations/solutions for upgrade/improvement.

## 2.16 TOWED ARRAY ACCEPTANCE TESTING AND CALIBRATION

The contractor shall perform acceptance testing of developmental, production and certain refurbished towed array components related to all towed arrays, hull mounted sensors and modules, telemetry and special design tow cables

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in accordance with NAVSEA/NSWCCD data gathering requirements. The portable acoustic signal processing systems shall be capable of interfacing with these Towed Arrays' digital telemetry for calibration and testing. Arrays will typically be tested in certain groupings to minimize cost and return to Ready for Issue (RFI) condition. This testing is generally accomplished at the Naval Undersea Warfare Center/Underwater Sound Reference Division (NUWC/USRD), Leesburg, Florida facility or at the NSWCCD Acoustic Research Detachment (ARD), Bayview, Idaho. Other locations will be identified in TIs.

## 2.17 MEASUREMENT SYSTEM CONFIGURATION CONTROL AND INTEGRATED LOGISTICS SUPPORT (ILS)

The contractor shall provide engineering and logistic support for the NSWCCD noise measurement systems, the configuration control board and the ILS Manager. The contractor shall assist NSWCCD in identifying and quantifying requirements, cost trade-off studies and long range program planning to ensure that acoustic and non-acoustic measurement systems are maintained in a high level of readiness to support acoustic trials of all current class submarines and all classes of surface ships, including Coast Guard ship classes. This support will be provided at NSWCCD signature facilities in Carderock, MD, Acoustic Trials Detachment (ATD) in Cape Canaveral, FL, ARD in Bayview, ID, SFTF in Dania Beach, FL and SEAFAC in Ketchikan, AK. Access to foreign test ranges may be granted on a case-by-case basis.

The contractor shall provide engineering and logistics expertise in evaluating the performance of current measurement systems, including the STAFAC and SEAFAC measurement systems and other measurement systems during signature trials, both acoustic and magnetic.

## 2.18 FORCE PROTECTION

The contractor shall support NSWCCD and appropriate Navy/NAVSEA commands, Coast Guard and the Department of Homeland Security (DHS) in the application of NDI data acquisition techniques, data acquisition and analysis systems and data analysis interpretation to Force Protection for forward deployed ships in open ocean and littoral environments, including protection of ports and harbors from intruding hostile surface and subsurface vehicles. The evaluation, analysis, support, prototyping and planning for special operations (SPECOPs) may be required. Special clearance/access may be required and provided via TI. SPECOPs customer may include, but is not limited to; PEO-NSW, USSOCOM, SOUTHCOM, DHS, Law Enforcement and other major military commands.

Elements of Force Protection may include support and/or development, prototyping, T&E and IV&V of various remotely operated explosive devices, ordnance and vehicles/vessels. Efforts may include the evaluation, analyses and counter measurements relative to acoustic and non-acoustic devices, magnetic, hydrodynamics, pressure, thermal and airborne devices. The evaluation of both passive and non-passive countermeasures will also be evaluated.

## 2.19 PROGRAM MANAGEMENT SUPPORT

The contractor shall provide management support to NSWCCD and NAVSEA (including PEOs) for the Submarine and Surface Ship tactical programs and other programs that affect submarines, surface and Coast Guard ships for in-service and new construction units. The contractor shall track financial performance, assist in acquisition reform initiatives, evaluate contract type for cost-efficiency and procurement documentation while addressing action items from specific meetings and obtain updates from cognizant activities and personnel to bring items to closure. The contractor shall assist in establishing Integrated Product Teams (IPTs) to support the submarine and surface ship tactical, noise and sensor programs.

## 2.20 ACQUISITION REFORM/PROCUREMENT SUPPORT

The contractor shall provide the necessary personnel and specialists (including academia) to assist the Navy and DOD acquisition community in formulating, reviewing and operating expert recommendations in support of acquisition reform, transformation and program planning. No Organizational Conflict of Interest (OCI) shall exist, and applicable Non-Disclosure Agreements (NDA) shall be executed to support this effort. Specific TIs will designate specific commands, directorates, PEOs and Warfare Centers. Customers may include, but are not limited to; DOD-OSD, Navy, NAVSEA, PEOs, SPAWAR, all Warfare Centers, DHS and elements of law enforcement.

## 3.0 PERSONNEL

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Key Personnel Labor Category	Hours/Year	# of Resumes
Program Manager		2
Principal Scientist/Engineer		2
Supervisory Senior Engineer		4
Senior Systems Engineer		4
Senior Engineer		2
Senior Software Engineer		1
Senior Management Analyst		2
Electrical/Electronics Engineer		3
Software Engineer		2
Senior Test Engineer		1
<b>Total</b>		<b>23</b>

Non-Key Personnel Labor Category	Hours/Year
Mechanical Technician	
Management Analyst	
Fabrication Support Technician	
Electronic Technician	
Clerk Typist	
<b>Total</b>	

\*It is noted that the hours per labor category are estimates for the purpose of negotiating the task order ceiling. The TO has been extended to five years, therefore the above hours per year do not accurately reflect performance of the effort. However the hours reflect the initial Government estimate and will not be revised as a result of the extensions.

A. Key Personnel - There are ten (10) Key Personnel labor categories, each of equal importance.

(1) Program Manager - The desired level of experience and educational background for the Program Manager (s) are:

a. Fifteen (15) years experience in managing projects and programs related to the design, development, test, and evaluation, or implementation of complex systems related to acoustic and non-acoustics signatures, vibration, sonar, and ship silencing. Five (5) years of which demonstrate experience in the management of level-of-effort contracts in technical disciplines related to the Statement of Work cited herein.

b. Familiarity with ship silencing programs for both surface ships and submarines, and familiarity with the interrelationships between and requirements of the Fleet, NAVSEA, Navy Laboratories, and other Navy activities dealing with ship silencing programs and issues.

c. Familiarity with programs involved in solving acoustic, non-acoustic, signatures, and vibration problems in current Navy ships and in improving the acoustic and non-acoustic performance of the next generation of Navy ships.

d. Familiarity with Navy programs and standards for secure high-speed data transmission and Information Assurance (IA), and experience in leading project teams in their successful implementation.

e. A Bachelor of Science degree in engineering or physics.

(2) Principal Scientist/Engineer - The desired level of experience and educational background for the Principal Scientist/Engineer are:

a. A comprehensive understanding of silencing issues (including non-acoustics) as they relate to ship mission, design, and operation of ship systems, and how those issues influence modifications and silencing improvement to



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present ships, and design and specifications of future ships. Demonstrated lead authorship on technical reports.

b. Fifteen (15) Years total experience in surface ship and submarine silencing. Five (5) years of which demonstrate experience in supervision and project management of acoustic and vibration related ship signatures tasks.

c. A Bachelor of Science degree in engineering or physics.

(3) Supervisory Senior Engineer - The desired educational background and level of experience for the Supervisory Senior Engineer (s) are:

a. Fifteen (15) years total experience in surface ship and submarine silencing. Five (5) years of which demonstrated experience in supervision and project management of acoustic and vibration related ship signatures tasks, and

b. A comprehensive understanding of silencing issues (including non-acoustics) as they relate to ship mission, design, and operation of ship systems, and how those issues influence modifications and silencing improvement to present ships, and design and specifications of future ships. Demonstrated lead authorship on technical reports.

c. A Bachelor of Science degree in engineering or physics.

(4) Senior Systems Engineer - The desired educational background and level of experience for the Senior Systems Engineer (s) are:

a. Ten (10) years technical experience with emphasis in the past five (5) years in signatures system development including system performance evaluation requiring tradeoff analysis of alternate design approaches involving current acoustic array technology and accurate sound pressure level signature measurement involving signal path analysis for both active and passive systems. Subsystem development involving signal conditioning, multi-element arrays, electrical calibration for accomplishing precise sound-pressure-level measurements, analog/digital telemetry from transmission of signals on cables several thousand feet in length, secure, high speed, real-time data transmission, beamforming, and interfacing to processors. Real-time, active acoustic systems used for ranging, tracking, and positioning of shipboard-suspended and bottom-mounted applications.

b. Demonstrated record of technical achievement on complex underwater acoustic measurement system projects including technical report and documentation preparation including engineering/fabrication drawings and detailed specifications for system, subsystem, and component elements.

c. A Bachelor of Science degree in engineering or physics.

(5) Senior Engineer - The desired educational background and level of experience for the Senior Engineers are:

a. Planning, conduct, data collection and processing, analysis and report generation for full-scale surface ship and submarine noise trials and towed array T&E including self noise analysis. Preparation of system T&E and acoustic trial test agendas, data reduction plans and system operating procedures. Acoustic measurement technology analysis and formulation of acoustic measurement system, ranging system and environmental system development initiatives.

b. Eight (8) Years experience in submarine and surface ship silencing/signatures/sonar work. The experience will include design and development of hydrophone arrays for ship radiated noise measurements and specialized software and hardware integration for signature measurement systems. In-depth knowledge of the development of ship acoustic data acquisition, processing and analysis systems, ranging and tracking systems used in acoustic noise measurement trials, and environmental measurement systems required. Also required is a working knowledge of modern systems involved with signatures measurements and related fleet sonar's (both hardware and software), especially towed arrays.

c. A Bachelor of Science degree in engineering or physics.

(6) Senior Software Engineer - The desired educational background and level of experience for the Senior Software

a. Eight (8) years experience in developing complex hardware/software and network systems. Five (5) years of which must demonstrate experience in the interfacing of hardware, developing networks, and the development of software for: (1) real time acquisition and analysis of acoustic data from ships and submarines, and underwater tracking systems, or (2) command and control and information management systems, or (3) secure, high speed, real-time data transmission, or (4) TEMPEST and Information Assurance (IA) standards implementation. This includes working

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knowledge of operating systems Windows 2000 and above, Linux, UNIX and software development using languages and software common to the types of systems given in the SOW. Individuals will have an established track record of successful project management in support of system development and integration.

b. A Bachelor of Science degree in computer science, engineering, or physics

(7) Senior Management Analyst - The desired educational background and level of experience for the Senior Management Analyst (s) are:

a. Ten (10) years experience in planning, organizing, reviewing, and documenting of Ship Acoustics and other Research, Development, Test and Evaluation (RDT&E) projects and financial data, production and manufacturing schedule reports, and analysis cost/schedule control system criteria, program level technical requirement analysis, major systems acquisition support documentation preparation, including tactical sonar systems acquisition support, implementation of the DOD Planning Programming Budgeting System (PPBS) and progress reporting.

b. A Bachelor of Science degree in a technical, business, analytical, or financial area.

(8) Electrical/Electronics Engineer - The desired educational background and level of experience for the Electrical/Electronics Engineer(s) are:

a. Five (5) years experience involving passive acoustic sensors/arrays including transducers, signal conditioning/preamplification, electrical calibration, and summing networks, data transmission (analog and digital, secure, high speed, real-time and near-real-time), acoustic signal monitoring, data reduction, and recording equipment design, assembly, installation and check out, real-time acoustic signal conditioning and beamforming development (analog and digital), design of components and subassemblies, and design documentation and technical report preparation including acceptance test reports and evaluation reports.

b. Three (3) years experience involving equipment development that meets Information Assurance (IA) and TEMPEST requirements (DODD No.8500 and DODD No. 8505 (Series), respectively).

c. A Bachelor of Science degree in electrical/electronics engineering.

(9) Software Engineer - The desired educational background and level of experience for the Software Engineer(s) are:

a. Five (5) Years demonstrated experience in the interfacing of hardware and the development of software for: (1) real time acquisition and analysis of acoustic data from ships and submarines, and underwater tracking systems, or (2) command and control and information management systems, or (3) secure, high speed, real-time data transmission, or (4) TEMPEST and Information Assurance (IA) standards implementation.

b. Five (5) years demonstrated working experience in the support of the development of data distribution and transmission networks (e.g. TIDS, LAN, WAN) to meet established network engineering standards. Experience with multiple System Development Life Cycle (SDLC) models, IP DII COE Standards, and network engineering credentials such as Microsoft Certified Systems Engineer (MCSE) or Cisco Certified Network Professional (CCNP) is required.

c. Five (5) years demonstrated working experience and knowledge of Windows 2000 and above, Linux, UNIX and other contemporary operating systems, and software development tools including Labview, C++, Matlab, and Interactive Data Language (IDL). Individuals will have an established track record of project management of system development and integration plus demonstrated task completion of software module development in support of system development and integration.

d. A Bachelor of Science degree in engineering, physics, or computer science.

(10) Senior Test Engineer - The desired educational background and level of experience for the Senior Test Engineer(s) are:

a. Ten (10) years experience in the development and implementation of test plans, and documentation of test results for: (1) real time acquisition and analysis of acoustic data from ships and submarines, and underwater tracking systems, or (2) command and control and information management systems, or (3) secure, high speed, real-time data transmission systems, or (4) TEMPEST and Information Assurance (IA) standards implementation.

b. Five (5) years demonstrated working experience in the development and implementation of test plans, and

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documentation of test results for the support of the testing of data distribution and transmission networks (e.g. TIDS, LAN, WAN) to meet established network engineering standards.

c. A Bachelor of Science degree in engineering, physics, or computer science.

B. Non-Key Personnel - The following labor categories are designated non-Key Personnel for this task order. The offeror shall provide a listing of non-key personnel who will be assigned to the categories of labor specified below as non-key. These personnel must meet the qualifications specified in this section to be acceptable and the offeror must certify in writing that all proposed personnel meet the prescribed requirements.

(1) Mechanical Technician - Shall have five (5) years experience as a mechanical technician with 3 years in the area of maintenance, installation, operation of marine environment equipment.

(2) Management Analyst - The management analyst (s) shall have:

a. Five (5) years experience involving development and implementation of program and project management and organizational management tracking and control systems including the development of requirements, implementation of procedures, and development of documentation to demonstrate system performance, and

b. Three (3) years experience in supporting program managers to prepare, organize, collect, evaluate, review and/or revise program documentation including issue papers, program plans, implementation plans, milestone charts, work breakdown structures, impact statements, funding profiles, procurement requirements, planning documents and control data.

(3) Fabrication Support Technician - Shall have five (5) years experience as a fabrication technician in a manufacturing environment.

(4) Electronic Technician - Shall have five (5) years experience as a technical drafter with experience in the use of CAD/CAM systems.

(5) Clerk Typist - Shall have one (1) year experience as a typist.

#### **4.0 REQUIRED REPORTS**

The contractor shall report contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract for Naval Surface Warfare Center, Carderock Division via a secure data collection site. Contracted services excluded from reporting are based on Product Service Codes (PSCs). The excluded PSCs are:

- (1) W, Lease/Rental of Equipment;
- (2) W, Lease/Rental of Facilities;
- (3) Y, Construction of Structures and Facilities;
- (4) S, Utilities ONLY;
- (5) V, Freight and Shipping ONLY.

The contractor is required to completely fill in all required data fields using the following web address <https://doncmra.nmci.navy.mil>.

Reporting inputs will be for the labor executed during the period of performance during each Government fiscal year (FY), which runs October 01 through September 30. While inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year. Contractors may direct questions to the help desk, linked at <https://doncmra.nmci.navy.mil>.

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## SECTION D PACKAGING AND MARKING

Packaging and Marking shall be in accordance with Section D of the base IDIQ contract.

COR: [REDACTED]  
Code 7072  
Naval Surface Warfare Center  
Carderock Division  
9500 MacArthur Blvd  
West Bethesda, MD 20817-5700  
E-mail: [REDACTED]  
Ph: [REDACTED]

All Deliverables shall be packaged and marked IAW Best Commercial Practice.

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## SECTION E INSPECTION AND ACCEPTANCE

Inspection and Acceptance shall be performed by the Government at destination by the Contracting Officer's Representative.

COR: [REDACTED]  
Code 7072  
Naval Surface Warfare Center  
Carderock Division  
9500 MacArthur Blvd  
West Bethesda, MD 20817-5700  
E-mail: [REDACTED]  
Ph: [REDACTED]

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## SECTION F DELIVERABLES OR PERFORMANCE

The periods of performance for the following Items are as follows:

4000	3/30/2012 - 3/29/2013
4001	3/30/2013 - 3/29/2014
4002	3/30/2014 - 3/29/2015
6000	3/30/2012 - 3/29/2013
6001	3/30/2013 - 3/29/2014
6002	3/30/2014 - 3/29/2015
7000	3/30/2015 - 3/29/2016
7100	3/30/2016 - 3/29/2017
7101	3/30/2016 - 3/29/2017
7102	3/30/2016 - 3/29/2017
7103	3/30/2016 - 3/29/2017
7200	12/9/2016 - 12/8/2017
7201	12/9/2016 - 12/8/2017
7202	1/25/2017 - 12/8/2017
9000	3/30/2015 - 3/29/2016
9100	3/30/2016 - 3/29/2017
9101	3/30/2016 - 3/29/2017
9102	3/30/2016 - 3/29/2017
9103	3/30/2016 - 3/29/2017
9200	12/9/2016 - 12/8/2017
9201	12/9/2016 - 12/8/2017
9202	12/9/2016 - 12/8/2017

### CLIN - DELIVERIES OR PERFORMANCE

#### 52.211-8 TIME OF DELIVERY (JUN 1997)

(a) The Government requires delivery to be made according to the following schedule:

<u>ITEM NO.</u>	<u>QUANTITY</u>	<u>WITHIN DAYS AFTER DATE OF TASK ORDER</u>
	-	
4000 & 6000	ALL	One (1) YEAR AFTER THE EFFECTIVE DATE OF THE TASK ORDER ASSUMING INCREMENTAL FUNDING IS PROVIDED
4001 & 6001	ALL	ONE (1) YEAR AFTER THE EFFECTIVE DATE OF THE OPTION EXERCISE MODIFICATION ASSUMING INCREMENTAL FUNDING IS PROVIDED
4002 & 6002	ALL	ONE (1) YEAR AFTER THE EFFECTIVE DATE OF THE OPTION EXERCISE MODIFICATION ASSUMING INCREMENTAL FUNDING IS PROVIDED

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7000 &  
9000

ALL

30 March 2015 through 29 March 2016

DODAAC: N00167

Primary COR: [REDACTED]

Code 7072

Naval Surface Warfare Center

Carderock Division

9500 MacArthur Blvd

West Bethesda, MD 20817-5700

E-mail: [REDACTED]

Ph: [REDACTED]

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**SECTION G CONTRACT ADMINISTRATION DATA**

**HQ G-2-0003 CONTRACTING OFFICER'S REPRESENTATIVE**

(a) The COR for this contract is:

[REDACTED]  
 Code 7072  
 Naval Surface Warfare Center  
 Carderock Division  
 9500 MacArthur Blvd  
 West Bethesda, MD 20817-5700  
 E-mail: [REDACTED]  
 Ph: [REDACTED]

(b) In the event that the COR named above is absent due to leave, illness or official business, all responsibilities and functions assigned to the COR will be the responsibility of the alternate COR. The Alternate COR for this contract is:

Name: [ \* ]  
 Mailing Address: [ \* ]  
 Code: [ \* ]  
 E-mail address: [ \* ]  
 Telephone Number: [ \* ]  
 Facsimile Machine Telephone Number: [ \* ]

\*No Alternate COR assigned at this time.

The Contractor shall forward a copy of all invoices to the Contracting Officer's Representative.

**DdI-G-21 TYPES OF ORDERS UNDER INDEFINITE DELIVERY TYPE CONTRACTS**  
 This Task Order shall be issued on a Cost-Plus-Fixed-Fee (Term) basis.

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**In accordance with (DFARS) PGI 204.7108 "Other"(d) (12) INVOICING AND PAYMENT INSTRUCTIONS FOR MULTIPLE ACCOUNTING CLASSIFICATION CITATIONS**

a) This requirement includes support for multiple programs with independent budgets and funding lines. These funding lines are NOT interchangeable and it is critical that the Paying Office pay in accordance with the ACRNs and SLINs noted on the contractor's invoices. To do otherwise could result in a misappropriation of funds.

(b) The Payment Office shall ensure that each payment under this contract is made in accordance with the specific accounting classification reference numbers (ACRNs) and SubCLIN (SLIN) numbers shown on each individual invoice, including attached data.

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**SEA 5252.216-9122 LEVEL OF EFFORT (DEC 2000)**

(a) The Contractor agrees to provide the total level of effort specified in the next sentence in performance of the work described in Sections B and C of this contract. The total level of effort for the performance of this contract shall be [REDACTED] total man-hours of direct labor, including subcontractor direct labor for those subcontractors specifically identified in the Contractor's proposal as having hours included in the proposed level of effort if all options are exercised.



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(b) Of the total man-hours of direct labor set forth above, it is estimated that [REDACTED] be identified at the task order level) man-hours are uncompensated effort.

Uncompensated effort is defined as hours provided by personnel in excess of 40 hours per week without additional compensation for such excess work. All other effort is defined as compensated effort. If no effort is indicated in the first sentence of this paragraph, uncompensated effort performed by the Contractor shall not be counted in fulfillment of the level of effort obligations under this contract.

(c) Effort performed in fulfilling the total level of effort obligations specified above shall only include effort performed in direct support of this contract and shall not include time and effort expended on such things as (local travel to and from an employee's usual work location), uncompensated effort while on travel status, truncated lunch periods, work (actual or inferred) at an employee's residence or other non-work locations (except as provided in paragraph (j) below), or other time and effort which does not have a specific and direct contribution to the tasks described in Sections B and C.

(d) The level of effort for this contract shall be expended at an average rate of approximately [REDACTED] per week. It is understood and agreed that the rate of man-hours per month may fluctuate in pursuit of the technical objective, provided such fluctuation does not result in the use of the total man-hours of effort prior to the expiration of the term hereof, except as provided in the following paragraph.

(e) If, during the term hereof, the Contractor finds it necessary to accelerate the expenditure of direct labor to such an extent that the total man hours of effort specified above would be used prior to the expiration of the term, the Contractor shall notify the Contracting Officer in writing setting forth the acceleration required, the probable benefits which would result, and an offer to undertake the acceleration at no increase in the estimated cost or fee together with an offer, setting forth a proposed level of effort, cost breakdown, and proposed fee, for continuation of the work until expiration of the term hereof. The offer shall provide that the work proposed will be subject to the terms and conditions of this contract and any additions or changes required by then current law, regulations, or directives, and that the offer, with a written notice of acceptance by the Contracting Officer, shall constitute a binding contract. The Contractor shall not accelerate any effort until receipt of such written approval by the Contracting Officer. Any agreement to accelerate will be formalized by contract modification.

(f) The Contracting Officer may, by written order, direct the Contractor to accelerate the expenditure of direct labor such that the total man hours of effort specified in paragraph (a) above would be used prior to the expiration of the term. This order shall specify the acceleration required and the resulting revised term. The Contractor shall acknowledge this order within five days of receipt.

(g) If the total level of effort specified in paragraph (a) above is not provided by the Contractor during the period of this contract, the Contracting Officer, at its sole discretion, shall either (i) reduce the fee of this contract as follows:

Fee Reduction = Fee((Required LOE minus Expended LOE)divided by Required LOE))

or (ii) subject to the provisions of the clause of this contract entitled "LIMITATION OF COST" (FAR 52.232-20) or "LIMITATION OF COST (FACILITIES)" (FAR 52.232-21), as applicable, require the Contractor to continue to perform the work until the total number of man hours of direct labor specified in paragraph (a) above shall have been expended, at no increase in the fee of this contract.

(h) The Contractor shall provide and maintain an accounting system, acceptable to the Administrative Contracting Officer and the Defense Contract Audit Agency (DCAA), which collects costs incurred and effort (compensated and uncompensated, if any) provided in fulfillment of the level of effort obligations of this contract. The Contractor shall indicate on each invoice the total level of effort claimed during the period covered by the invoice, separately identifying compensated effort and uncompensated effort, if any.

(i) Within 45 days after completion of the work under each separately identified period of performance hereunder, the Contractor shall submit the following information in writing to the Contracting Officer with copies to the cognizant Contract Administration Office and to the DCAA office to which vouchers are submitted: (1) the total number of man hours of direct labor expended during the applicable period; (2) a breakdown of this total showing the number of man hours expended in each direct labor classification and associated direct and indirect costs; (3) a breakdown of

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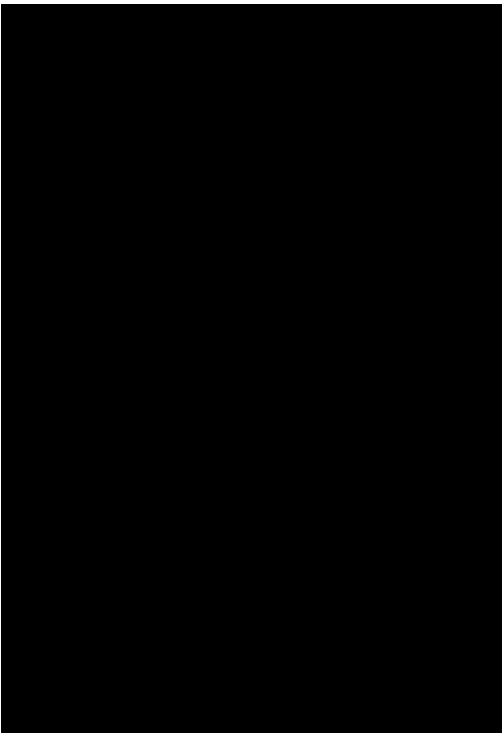
other costs incurred; and (4) the Contractor's estimate of the total allowable cost incurred under the contract for the period. Within 45 days after completion of the work under the contract, the Contractor shall submit, in addition, in the case of a cost underrun; (5) the amount by which the estimated cost of this contract may be reduced to recover excess funds and, in the case of an underrun in hours specified as the total level of effort; and (6) a calculation of the appropriate fee reduction in accordance with this clause. All submissions shall include subcontractor information.

(j) Notwithstanding any of the provisions in the above paragraphs, the Contractor may furnish man hours up to five percent in excess of the total man hours specified in paragraph (a) above, provided that the additional effort is furnished within the term hereof, and provided further that no increase in the estimated cost or fee is required.

(End of Clause)

**SEA 5252.232-9104 ALLOTMENT OF FUNDS (MAY 1993)**

(a) This contract is incrementally funded with respect to both cost and fee. The amount(s) presently available and allotted to this contract for payment of fee for incrementally funded contract line item number/contract subline item number (CLIN/SLIN), subject to the clause entitled "FIXED FEE" (FAR 52.216-8) or "INCENTIVE FEE" (FAR 52.216-10), as appropriate, is specified below. The amount(s) presently available and allotted to this contract for payment of cost for incrementally funded CLINs/SLINs is set forth below. As provided in the clause of this contract entitled "LIMITATION OF FUNDS" (FAR 52.232-22), the CLINs/SLINs covered thereby, and the period of performance for which it is estimated the allotted amount(s) will cover are as follows:

ITEM(s)	ALLOTED TO COST	ALLOTED TO FEE	PERIOD OF PERFORMANCE
4000			Through 29 March 2015
4001			Through 29 March 2015
4002			Through 29 March 2015
6000			Through 29 March 2015
6001			Through 29 March 2015
6002			Through 29 March 2015
7000			Through 29 March 2016
7101			Through 29 March 2017
7102			Through 29 March 2017
7103			Through 29 March 2017
7201			Through 8 December 2017
7202			Through 8 December 2017
9000			Through 29 March 2016
9101			Through 29 March 2017
9102			Through 29 March 2017
9103			Through 29 March 2017
9201			Through 8 December 2017
9202			Through 8 December 2017

(b) The parties contemplate that the Government will allot additional amounts to this contract from time to time for the incrementally funded CLINs/SLINs by unilateral contract modification, and any such modification shall state separately the amount(s) allotted for cost, the amount(s) allotted for fee, the CLINs/SLINs covered thereby, and the period of performance which the amount(s) are expected to cover.

(c) CLINs/SLINs are fully funded and performance under these CLINs/SLINs is subject to the clause of this contract entitled "LIMITATION OF COST" (FAR 52.232-20) or "LIMITATION OF COST (FACILITIES)" (FAR 52.232-21), as applicable.

(d) The Contractor shall segregate costs for the performance of incrementally funded CLINs/SLINs from the cost of performance of fully funded CLINs/SLINs.

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## HQ G-2-0007 INVOICE INSTRUCTIONS (NAVSEA) (JAN 2008)

(a) In accordance with the clause of this contract entitled "ELECTRONIC SUBMISSION OF PAYMENT REQUESTS" (DFARS 252.232-7003), the Naval Sea Systems Command (NAVSEA) will utilize the DoD Wide Area Workflow Receipt and Acceptance (WAWF) system to accept supplies/services delivered under this contract. This web-based system located at <https://wawf.eb.mil> provides the technology for government contractors and authorized Department of Defense (DoD) personnel to generate, capture and process receipt and payment-related documentation in a paperless environment. Invoices for supplies/services rendered under this contract shall be submitted electronically through WAWF. Submission of hard copy DD250/invoices may no longer be accepted for payment.

(b) It is recommended that the person in your company designated as the Central Contractor Registration (CCR) Electronic Business (EB) Point of Contact and anyone responsible for the submission of invoices, use the online training system for WAWF at <http://wawftraining.com>. The Vendor, Group Administrator (GAM), and sections marked with an asterisk in the training system should be reviewed. Vendor Quick Reference Guides also are available at <http://acquisition.navy.mil/navyaos/content/view/full/3521/>. The most useful guides are "Getting Started for Vendors" and "WAWF Vendor Guide".

(c) The designated CCR EB point of contact is responsible for activating the company's CAGE code on WAWF by calling 1-866-618-5988. Once the company is activated, the CCR EB point of contact will self-register under the company's CAGE code on WAWF and follow the instructions for a group administrator. After the company is set-up on WAWF, any additional persons responsible for submitting invoices must self-register under the company's CAGE code at <https://wawf.eb.mil>.

(d) The contractor shall use the following document types, DODAAC codes and inspection and acceptance locations when submitting invoices in WAWF:

Type of Document (*contracting officer check all that apply*)

- Invoice (FFP Supply & Service)
- Invoice and Receiving Report Combo (FFP Supply)
- Invoice as 2-in-1 (FFP Service Only)
- Cost Voucher (Cost Reimbursable, T&M , LH, or FPI)
- Receiving Report (FFP, DD250 Only)

DODAAC Codes and Inspection and Acceptance Locations (*contracting officer complete appropriate information as applicable*)

Issue DODAAC	<u>N00167</u>
Admin DODAAC	<u>S2404A</u>
Pay Office DODAAC	<u>HQ0338</u>
Inspector DODAAC	<u>N/A</u>
Service Acceptor DODAAC	<u>N/A</u>
Service Approver DODAAC	<u>N00167</u>
Ship To DODAAC	<u>N00167</u>

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DCAA Auditor DODAAC HAA031


LPO DODAAC N00167

Inspection Location DESTINATION

Acceptance Location DESTINATION

Attachments created in any Microsoft Office product may be attached to the WAWF invoice, e.g., backup documentation, timesheets, etc. Maximum limit for size of each file is 2 megabytes. Maximum limit for size of files per invoice is 5 megabytes.

(e) Before closing out of an invoice session in WAWF, but after submitting the document(s), you will be prompted to send additional email notifications. Click on "Send More Email Notification" and add the acceptor/receiver email addresses noted below in the first email address block, and add any other additional email addresses desired in the following blocks. This additional notification to the government is important to ensure that the acceptor/receiver is aware that the invoice documents have been submitted into WAWF.

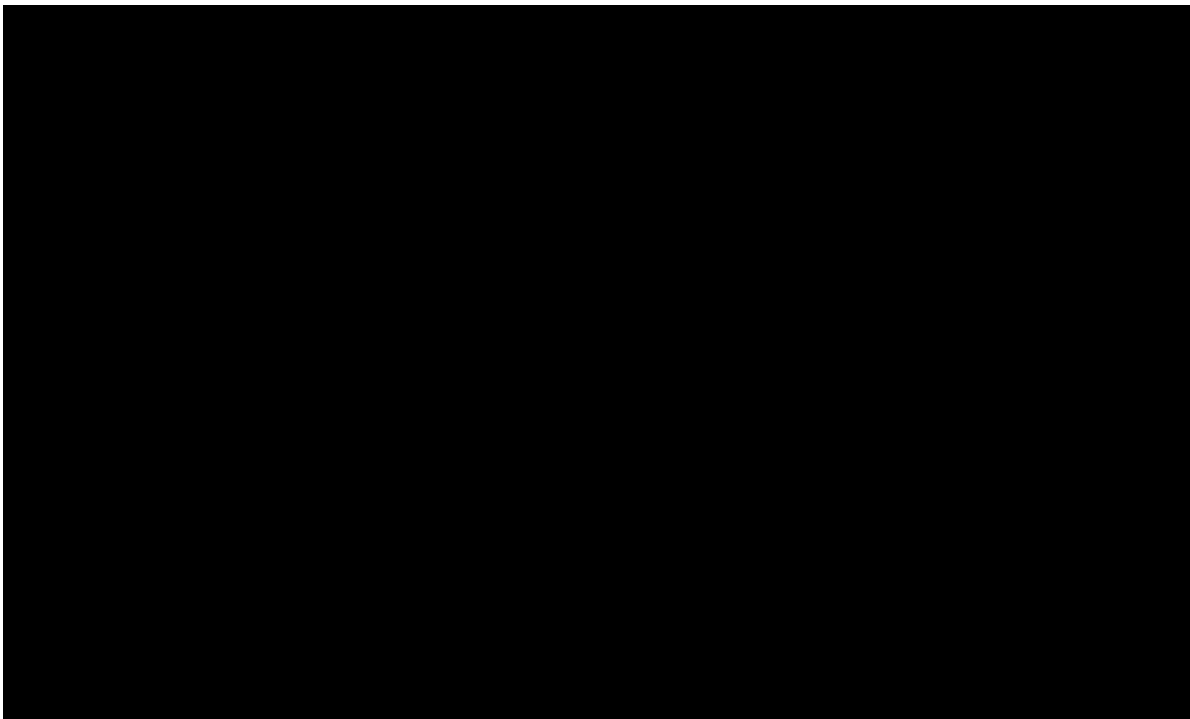
Send Additional Email Notification To:


(f) The contractor shall submit invoices/cost vouchers for payment per contract terms and the government shall process invoices/cost vouchers for payment per contract terms. Contractors approved by DCAA for direct billing will submit cost vouchers directly to DFAS via WAWF. Final voucher submission will be approved by the ACO.

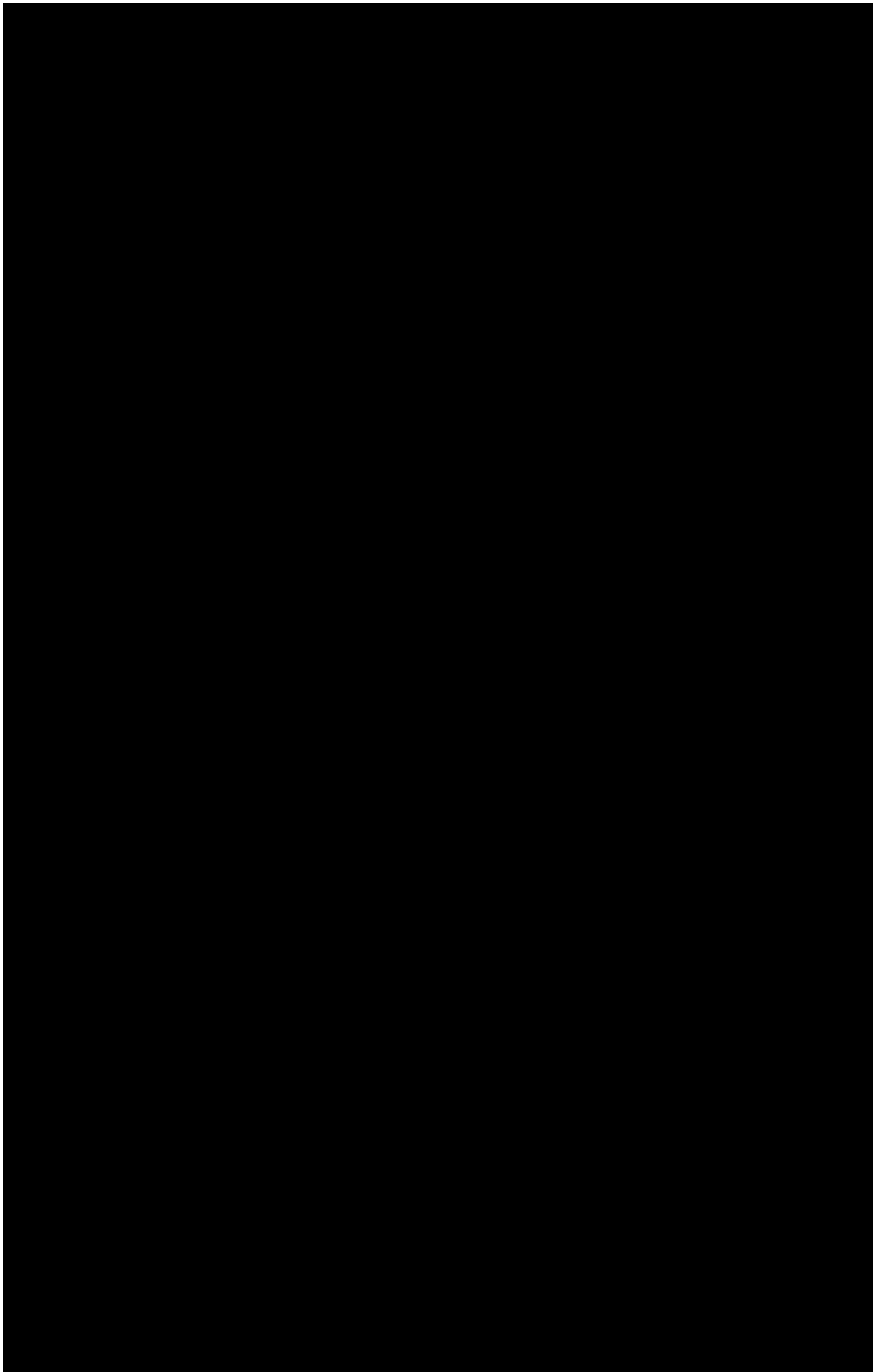
(g) The WAWF system has not yet been implemented on some Navy programs; therefore, upon written concurrence from the cognizant Procuring Contracting Officer, the Contractor is authorized to use DFAS's WInS for electronic end to end invoicing until the functionality of WInS has been incorporated into WAWF.

(h) If you have any questions regarding WAWF, please contact the WAWF helpdesk at the above 1-866 number or the NSWCCD WAWF point of contact at (301) 227-5419.

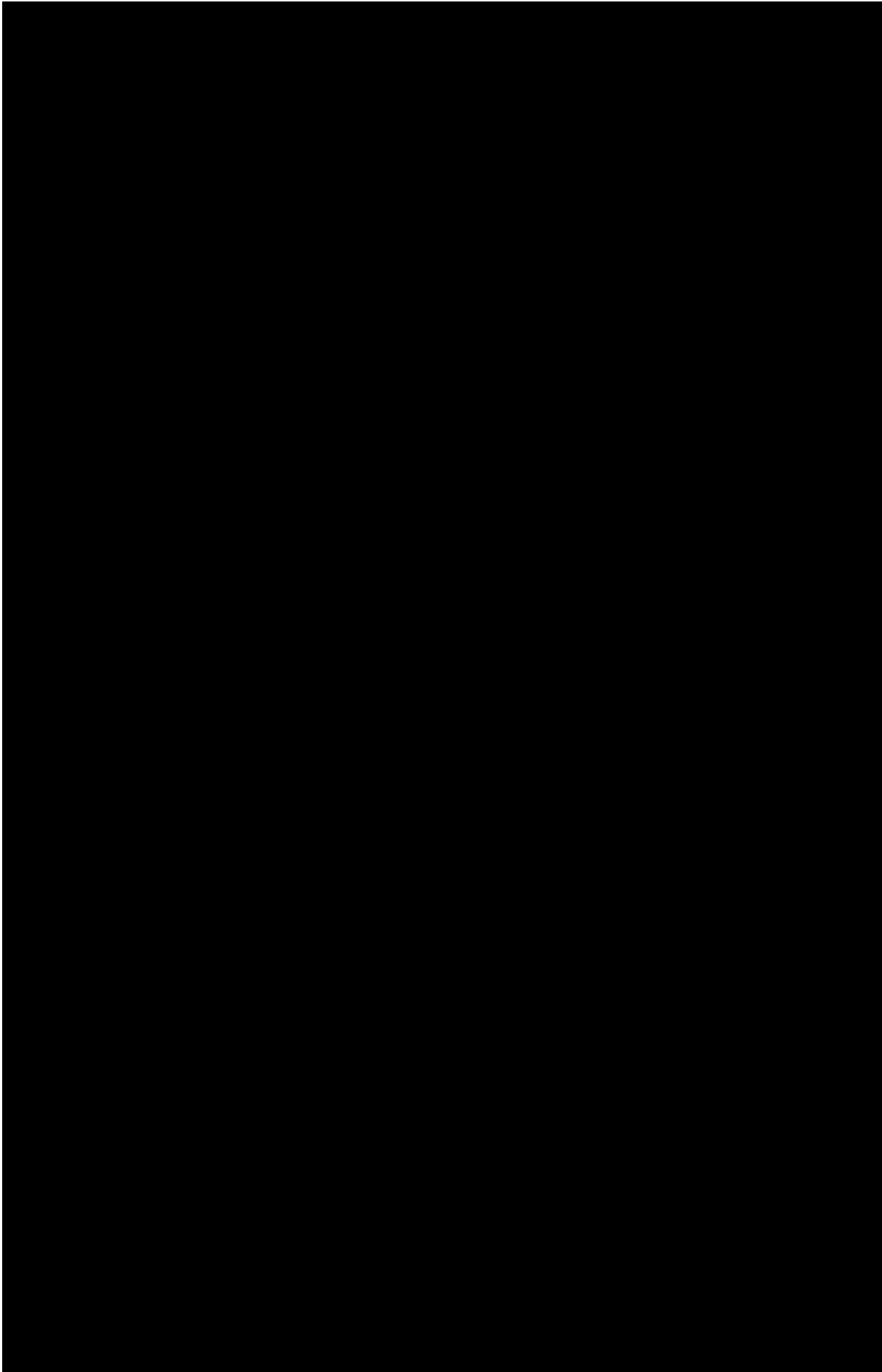
(End of Clause)



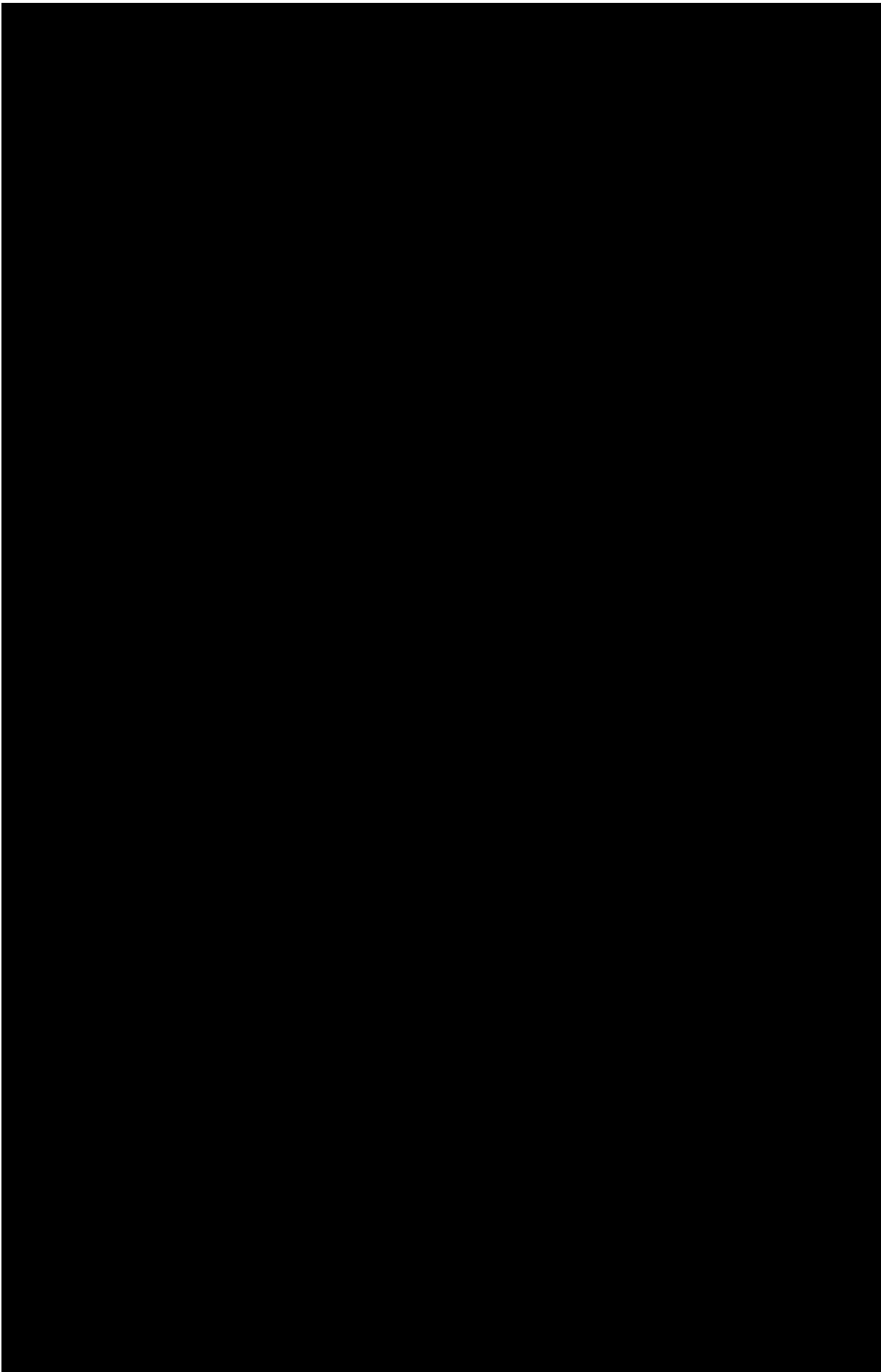
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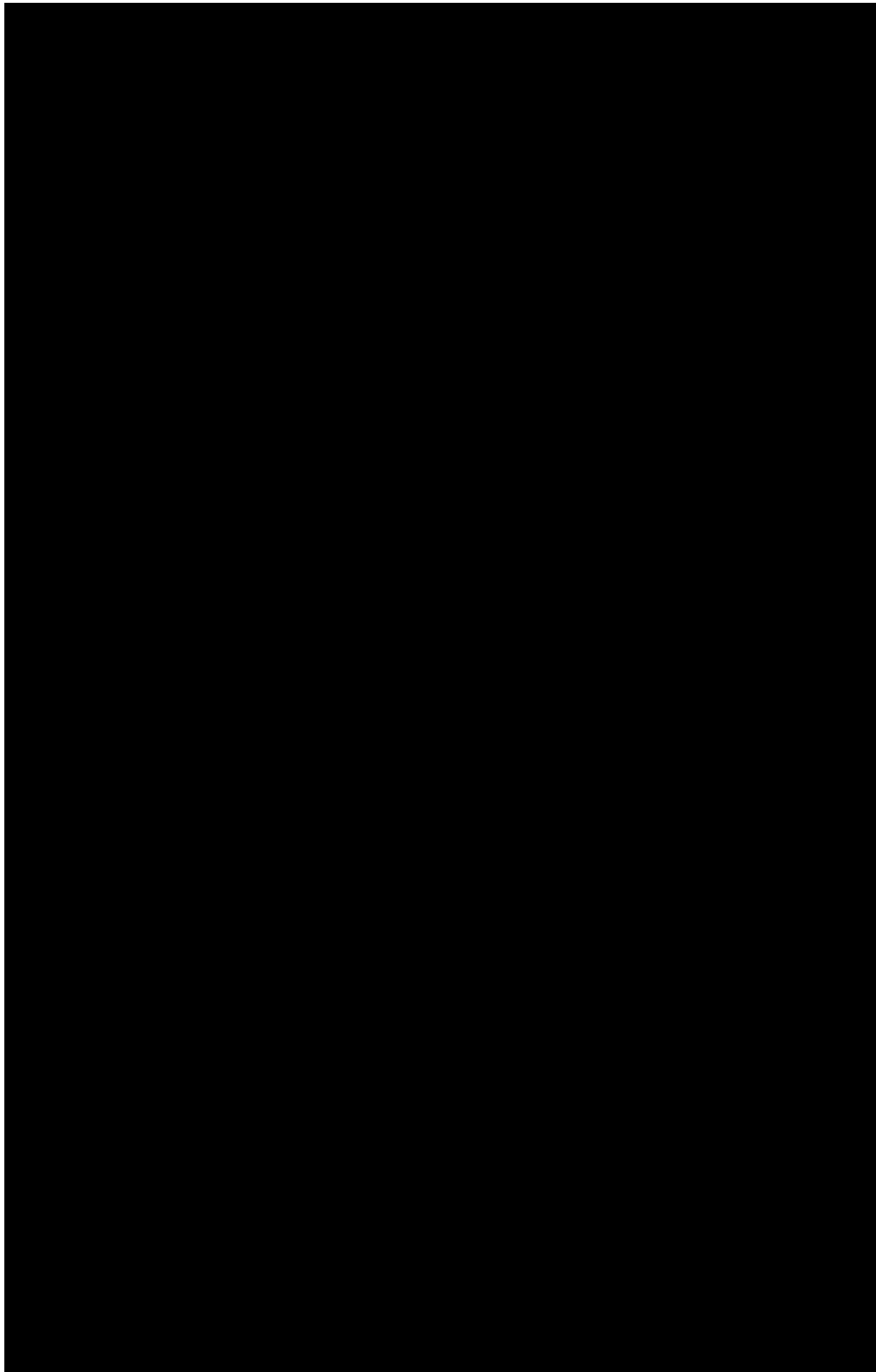


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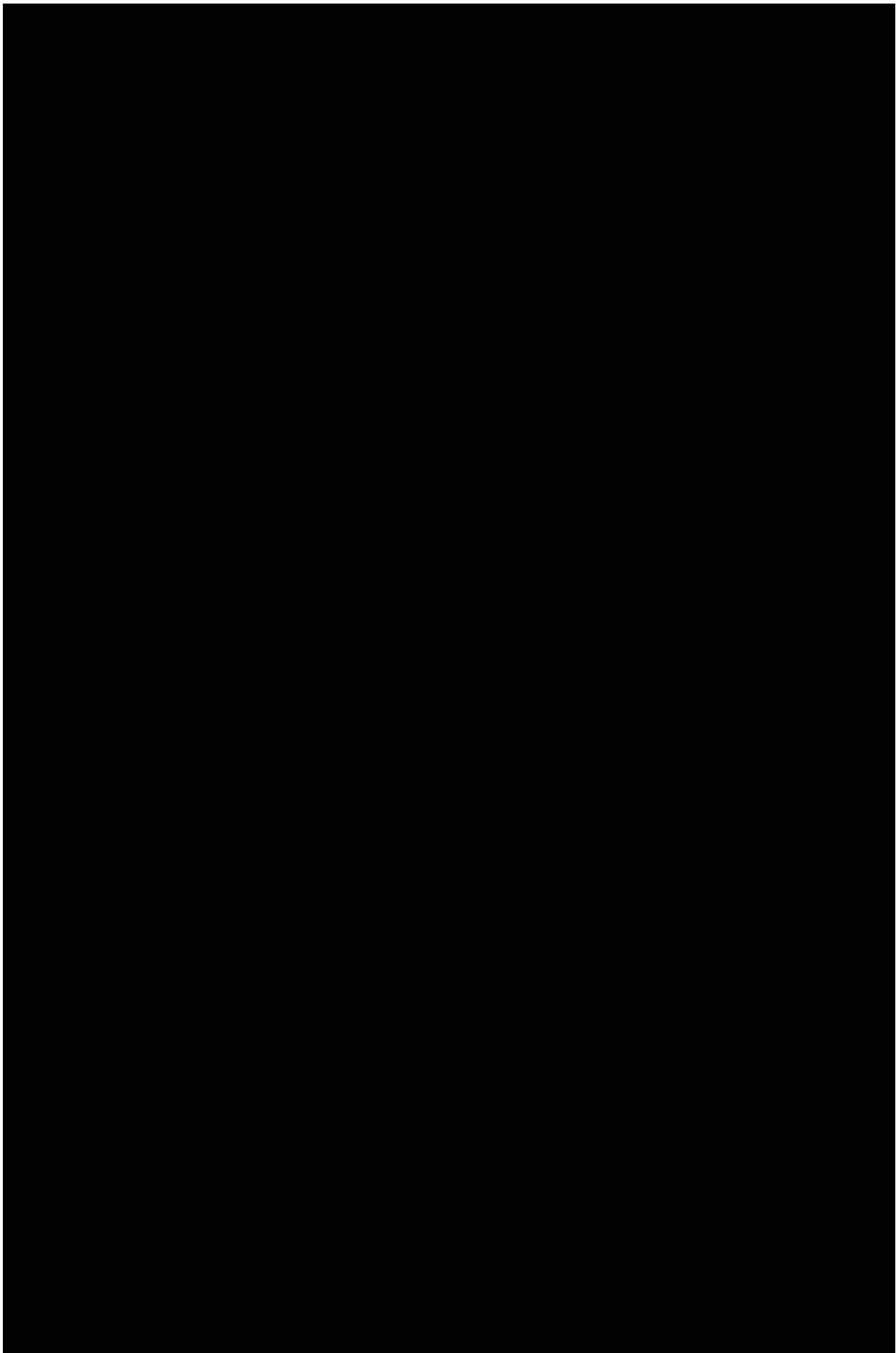




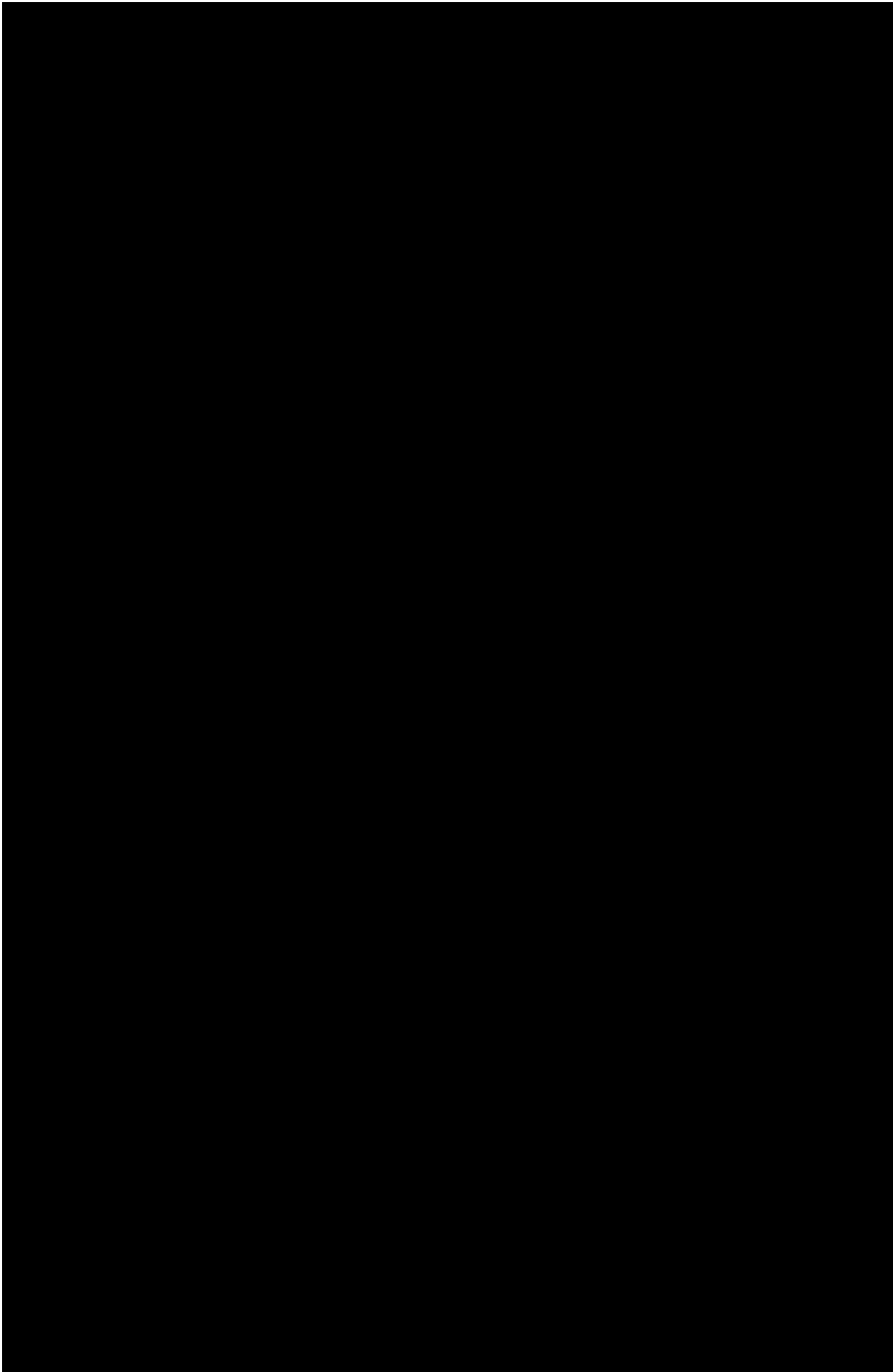
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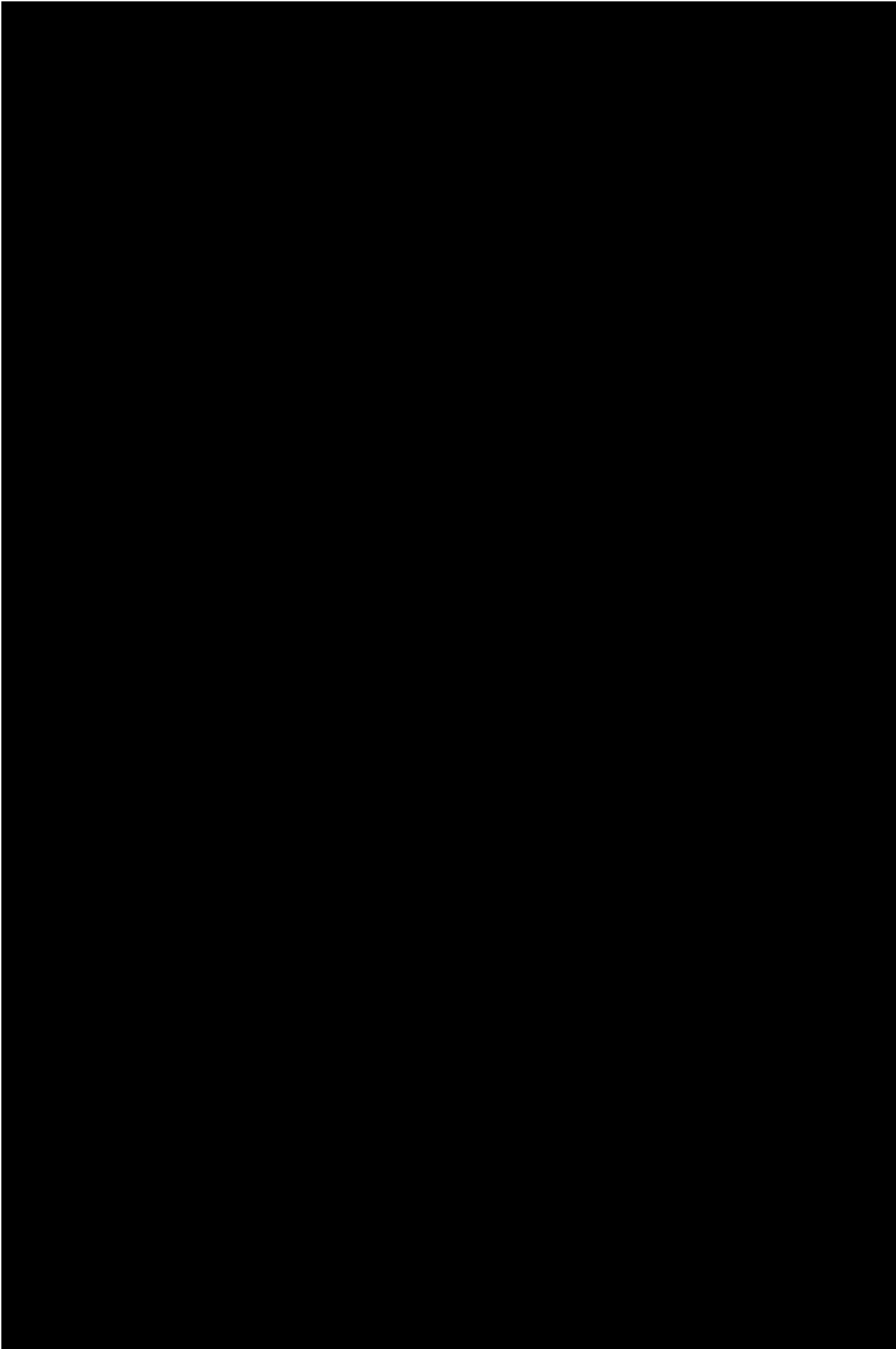
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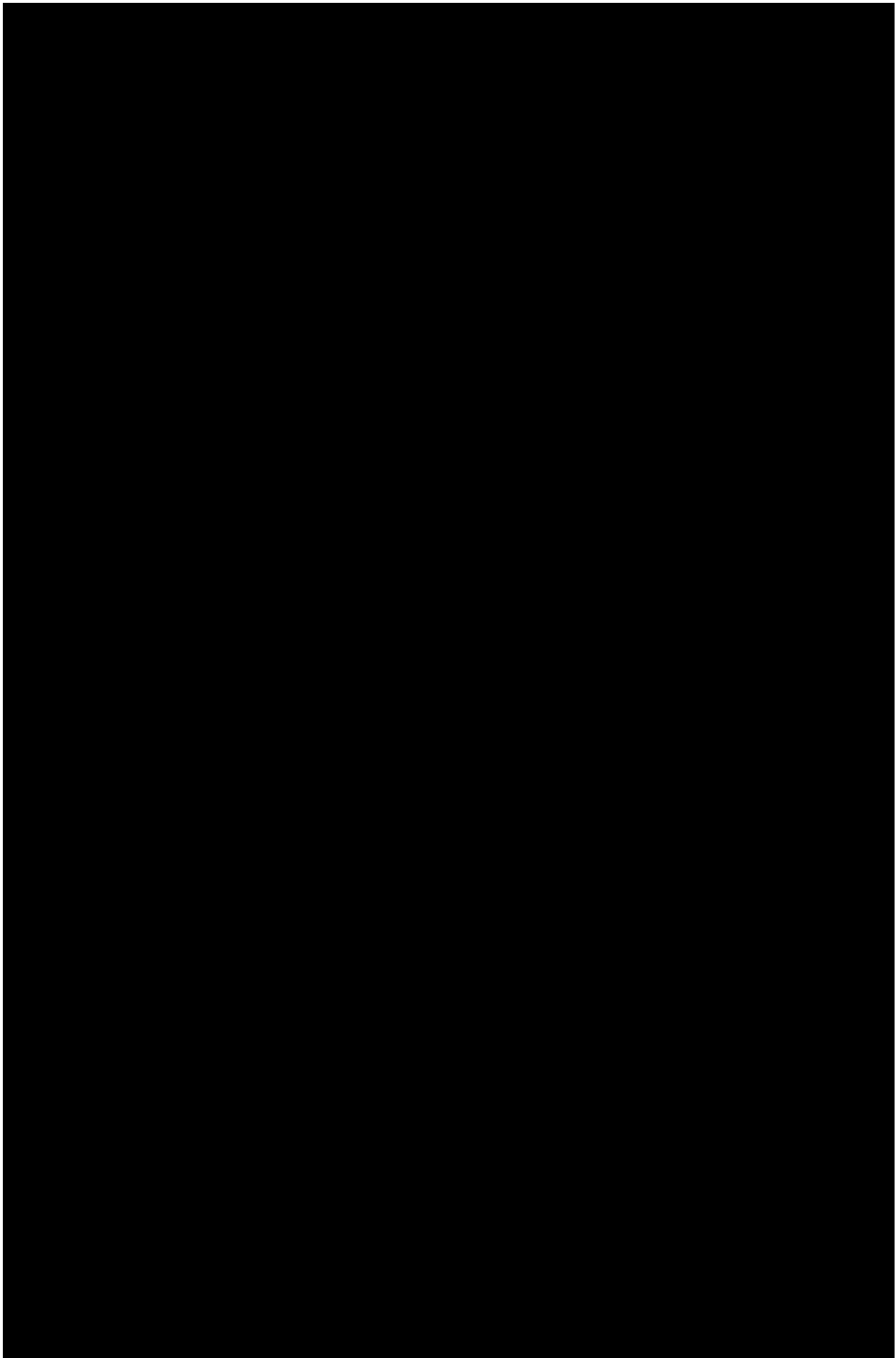
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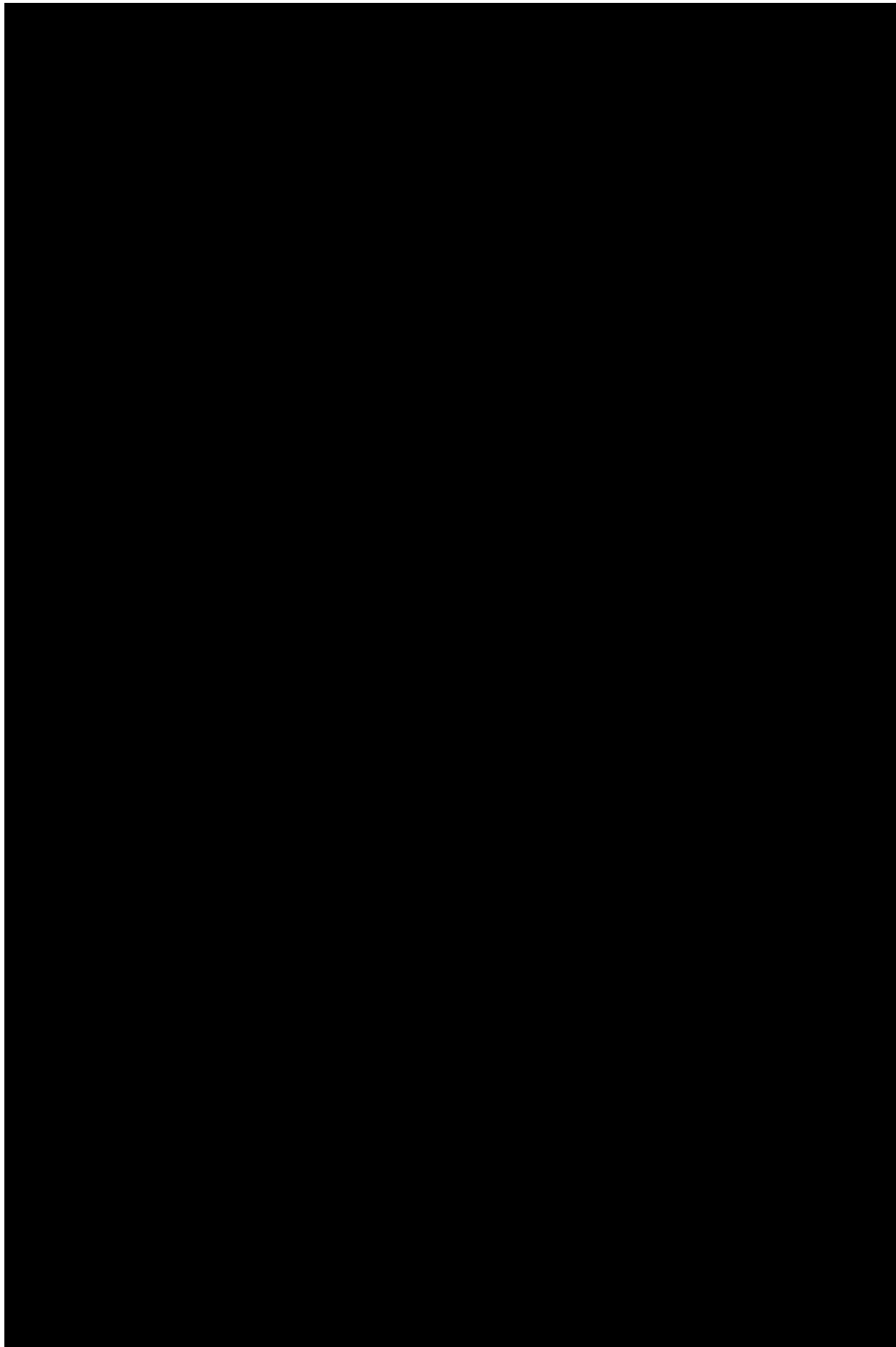
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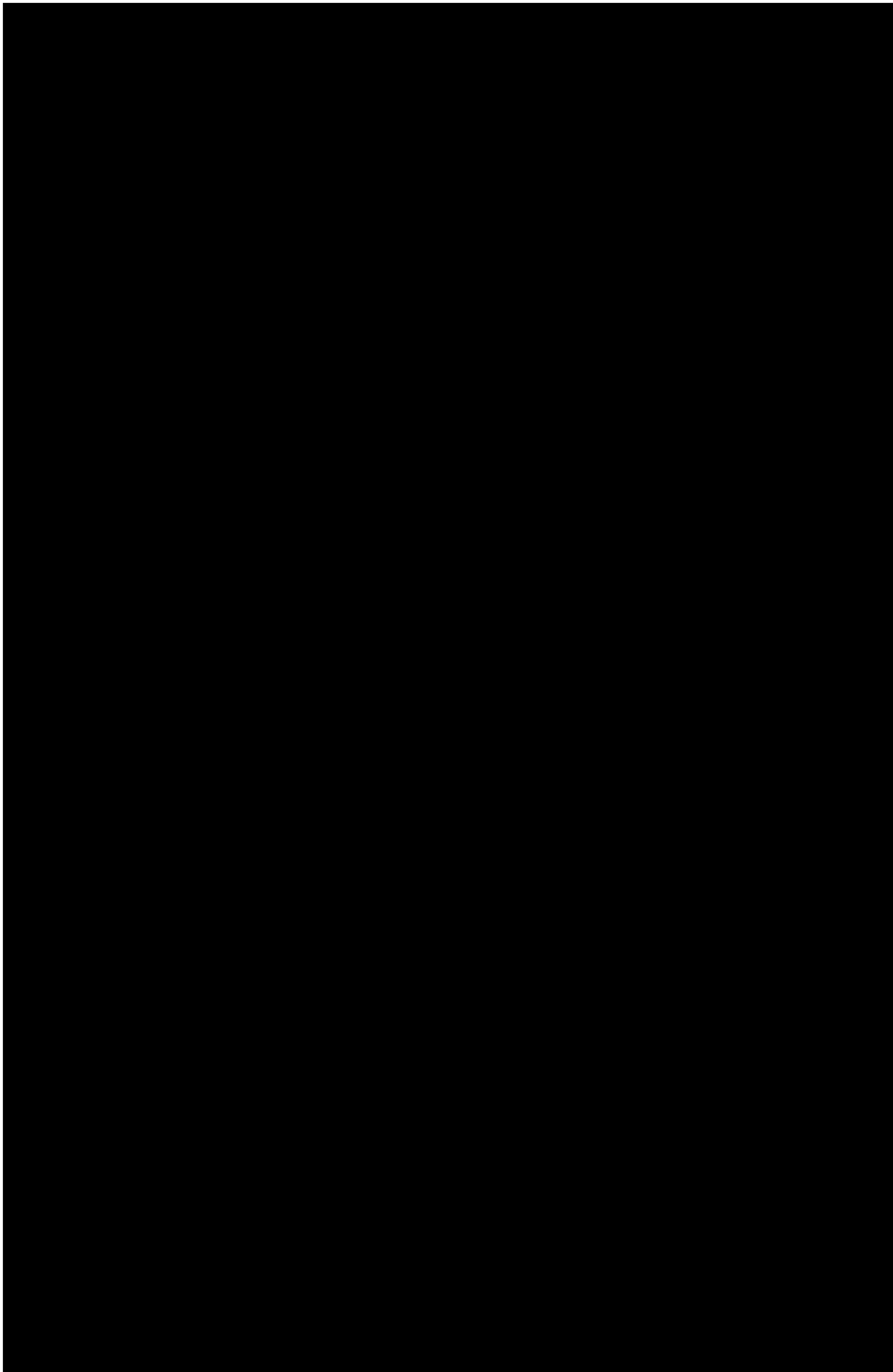
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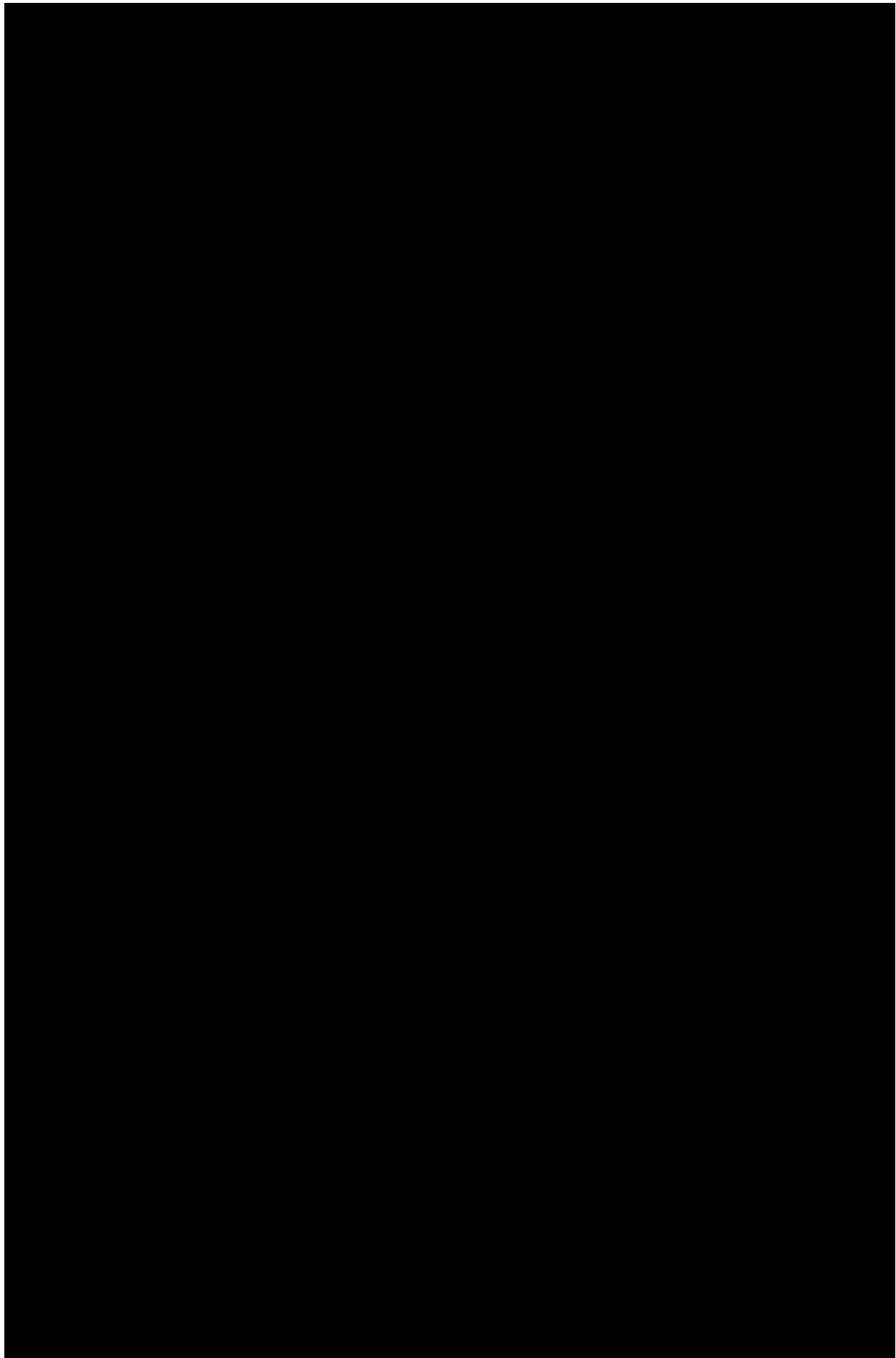
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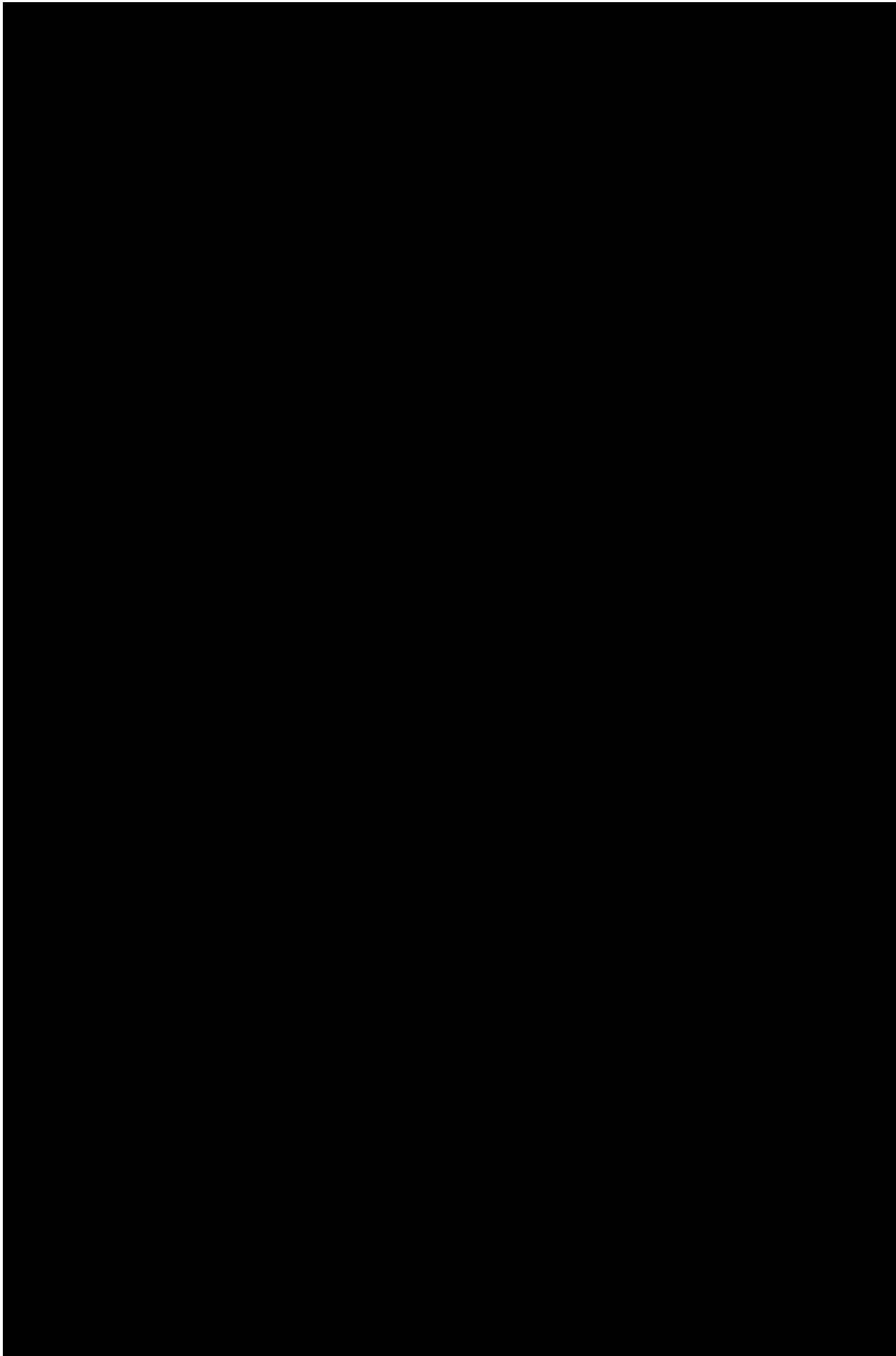


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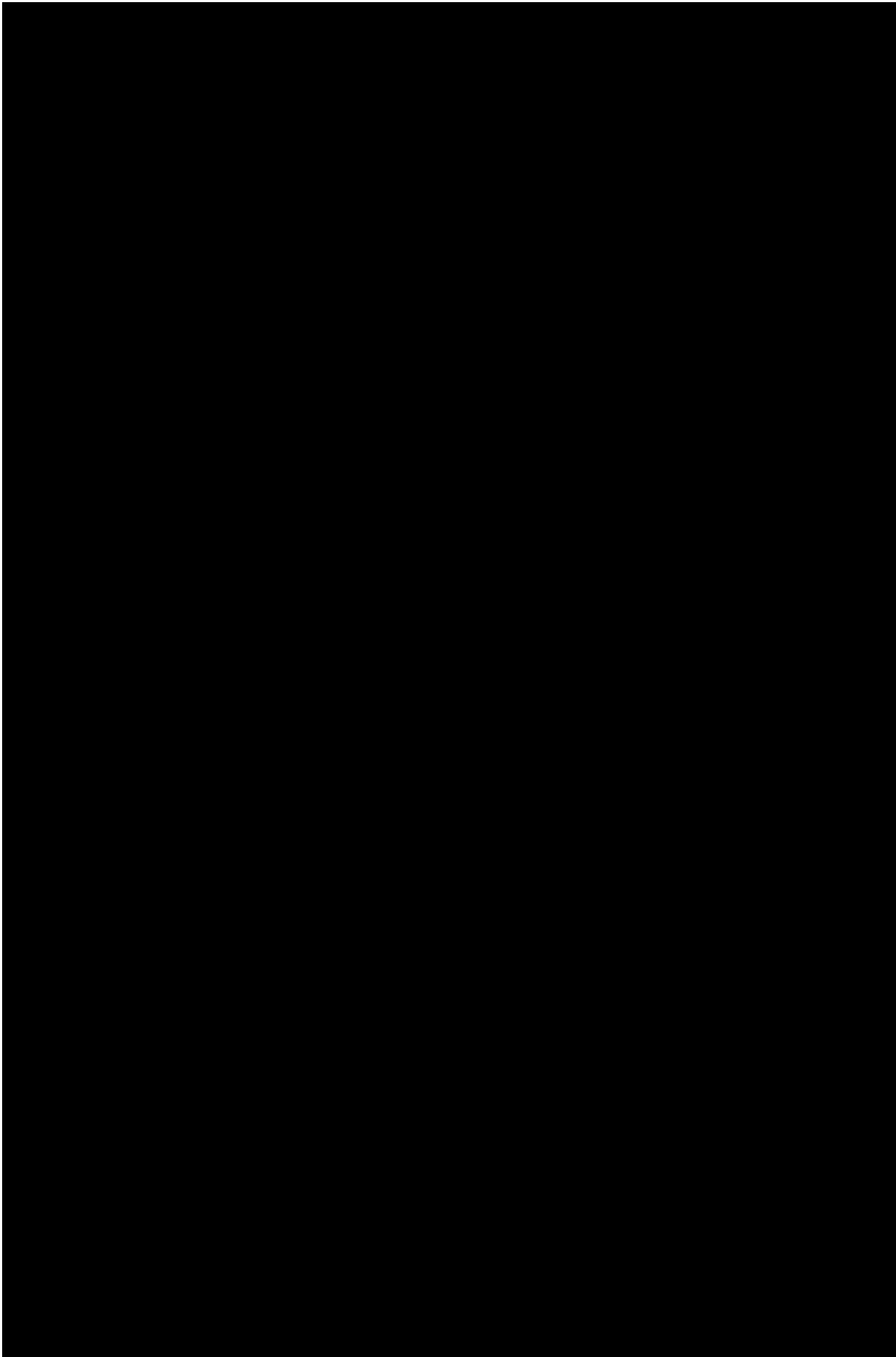




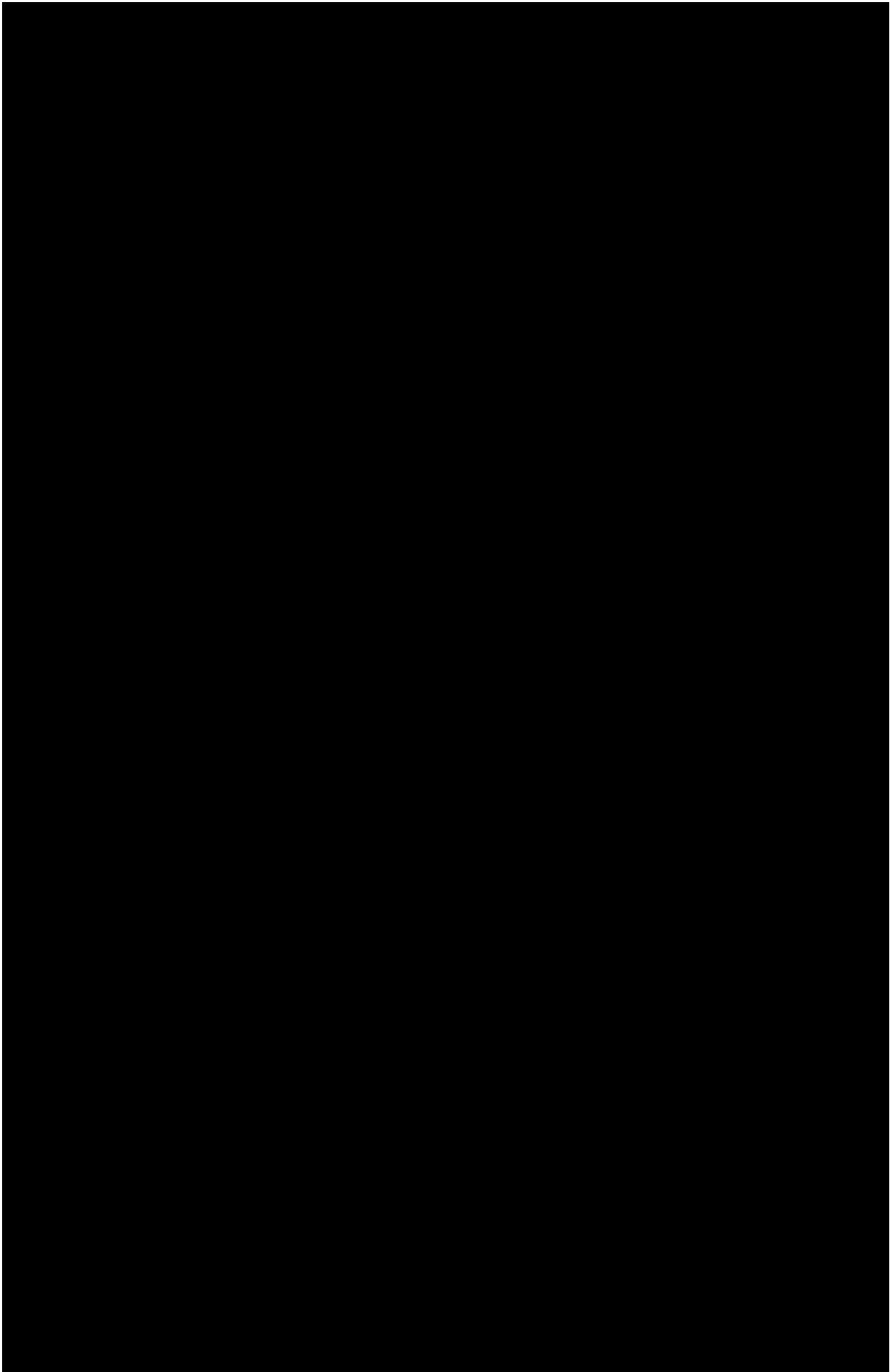
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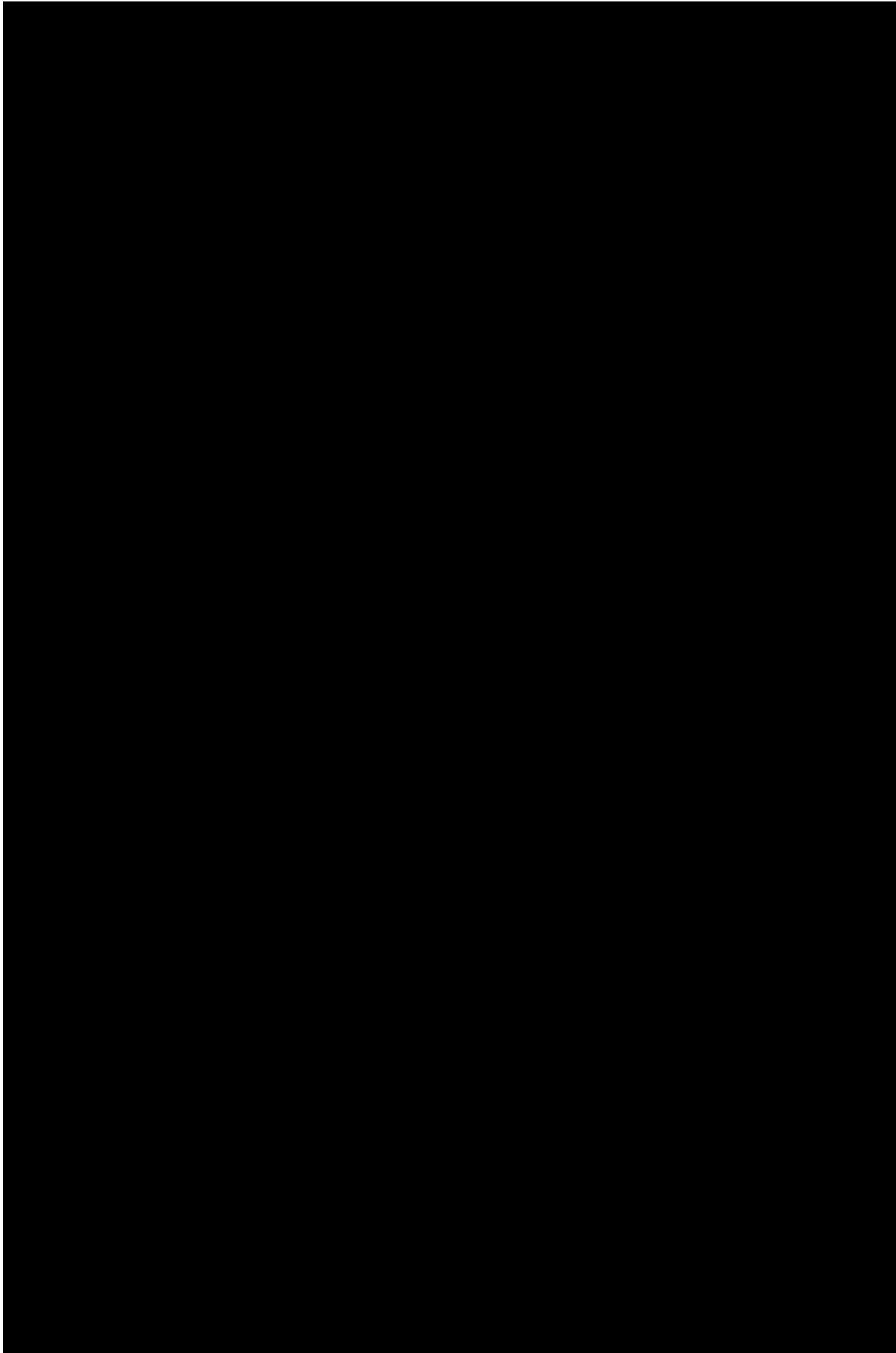
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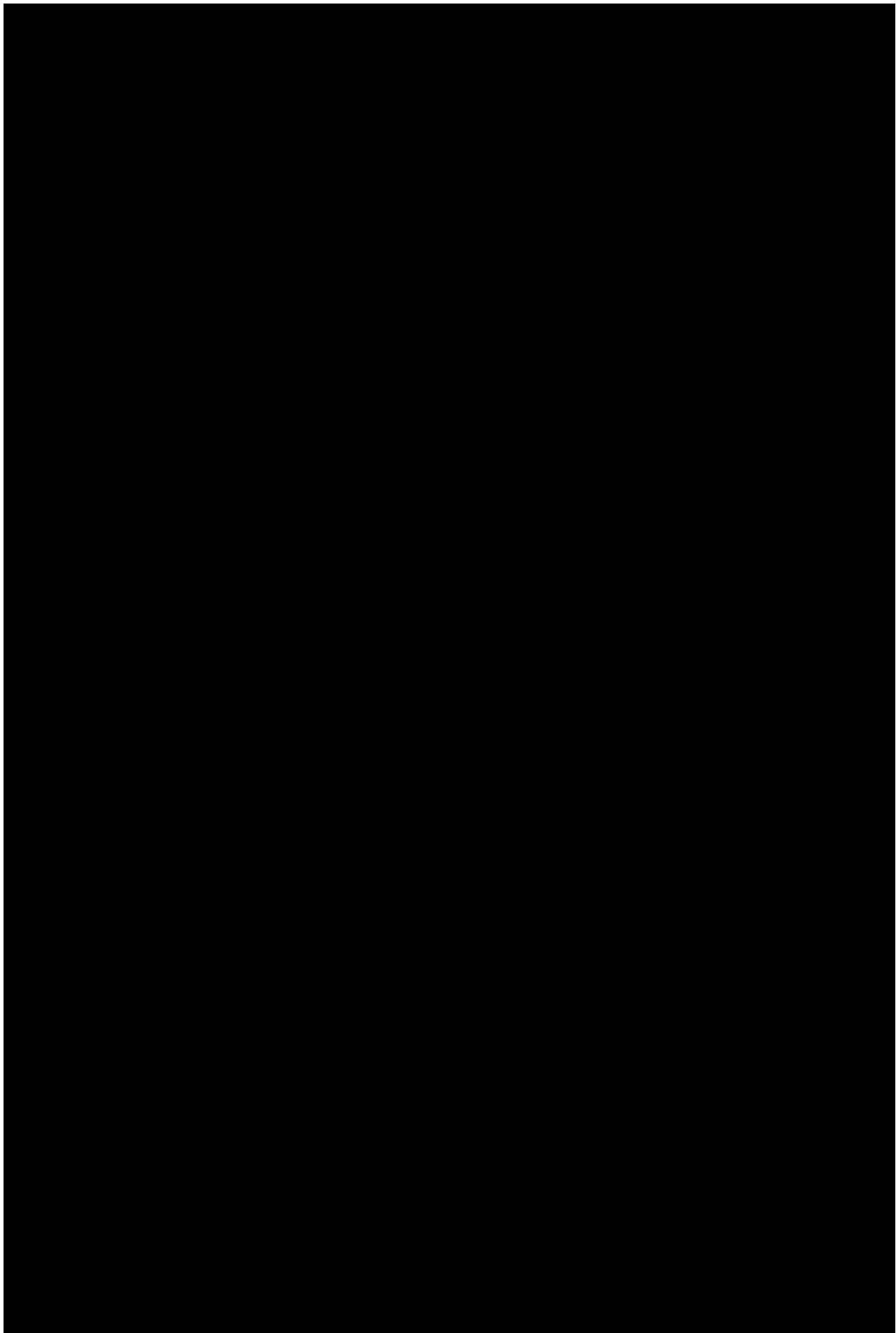
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## SECTION H SPECIAL CONTRACT REQUIREMENTS

### H-5 Task Order Process.

#### Ombudsman Description.

In accordance with FAR 16.505(a)(9), no protest under FAR Subpart 33.1 is authorized in connection with PCO decisions regarding fair opportunity or the issuance of a TO under this contract, except for a protest on the grounds that a TO increases the scope, period, or maximum value of the contract. The Local Warfare Center Site Deputy for Small Business has been designated as the NAVSEA and related Program Executive Offices Ombudsman for this contract. The NSWCCD Ombudsman will review complaints from the contractors and ensure that all contractors are afforded a fair opportunity to be considered, consistent with the procedures in the contract. Complaints to the NSWCCD Ombudsman must be forwarded to:

Ms. Irene Katacinski

Email: [irene.katacinski@navy.mil](mailto:irene.katacinski@navy.mil)

Telephone: 215-897-7596

### CAR-H09 Performance-Based Acquisition Evaluation Procedures for a SeaPort e Task Order (MAR 2006) (NSWCCD)

(a) Introduction: The contractor's performance on this task order will be evaluated by the Government, in accordance with this task order clause. The first evaluation will cover the period ending twelve months after the date of task order award with successive evaluations being performed for each twelve-month period thereafter until the contractor completes performance under the task order. Based on the evaluation results, the PCO will assign an overall performance rating in accordance with paragraph (b) of this clause. The purpose of the evaluation is to determine remedies that may be invoked due to "Unsatisfactory" performance. If the PCO assigns an "Unsatisfactory" performance rating for the period evaluated, the PCO may take unilateral action, in accordance with clause 52.246-5 entitled "Inspection of Services-Cost Reimbursement", dated Apr 1984, in Section E of the base contract, to provide for a fee reduction covering the performance period evaluated. This clause provides the basis for evaluation of the contractor's performance and for determining if the fee amount should be reduced due to "Unsatisfactory" performance.

(b) Performance Ratings: The Government will evaluate the contractor's performance of the Statement of Work under the task order for each twelve month period of performance, using the measurable performance standards set forth in the Performance Requirements Summary Table in the SOW, or elsewhere in the task order, and the PCO will assign one of the following ratings:

- (1) Excellent
- (2) Very Good
- (3) Satisfactory
- (4) Unsatisfactory

The standards associated with these ratings are given in the following Table 1.

Table 1: Overall Performance Ratings

For The Evaluation Period

Overall Performance Rating	Standard
Excellent	"Excellent" ratings for all performance evaluation criteria.

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Very Good A combination of “Excellent” and “Satisfactory” ratings determined by the PCO to exceed “Satisfactory” overall.

Satisfactory A minimum of “Satisfactory” ratings for all performance evaluation criteria.

Unsatisfactory A rating of “Unsatisfactory” for one or more performance evaluation criteria.

(c) Evaluation Objective: The purpose of the evaluation and the inclusion of a remedy to the Government for unsatisfactory contractor performance under this task order is to ensure that the Government receives at least “Satisfactory” overall performance.

(d) Performance Evaluation Criteria: The contractor’s performance will be evaluated on an annual basis using the criteria and standards provided for each task objective in the Performance Requirements Summary Table, and considering the criterion in Tables 2 through 4 of this task order clause.

(e) Organization: The performance evaluation organization consists of the Procuring Contracting Officer (PCO), who will serve as the Evaluation Official, and the Task Order Manager (ToM).

(1) ToM: The ToM will provide ongoing performance monitoring, evaluate task performance based on the task order Performance Requirements Summary, prepare the evaluation report, including a recommended overall performance rating, and submit the report to the PCO for final decision within thirty days after the end of the evaluation period. The ToM will maintain the written records of the contractor’s performance so that a fair and accurate evaluation is made.

(2) Procuring Contracting Officer (PCO): The PCO is responsible for properly administering the performance evaluation process, maintaining the official performance evaluation file, and making the decision about the overall performance rating and whether to reduce the fee if performance is rated as unsatisfactory.

(f) Evaluation Schedule: Each performance evaluation will cover the previous twelve months of performance. The Government will evaluate all work under the task order performed by the contractor during the twelve-month period. Following each evaluation period, the PCO (or Contract Specialist if so designated by the PCO) and the ToM will hold a meeting with the contractor’s Senior Technical Representative to review performance under the task order during the previous twelve months, including overall trends, specific problem areas, if any, and their resolution. Other Government and contractor personnel may also participate as deemed appropriate.

(g) Contractor’s Self-Evaluation: The contractor may also submit a Self-Evaluation Report for consideration. The report must include an overall performance rating for the task order, covering the evaluation period, and may include whatever information the contractor deems relevant to support that rating. The report shall not exceed two (2) pages in length.

(h) Performance Evaluation: The PCO will make the decision on the overall performance rating for the work performed under the task order within thirty days after receipt of the evaluation report from the ToM. The decision will be based upon the ToM’s recommendations, the contractor’s comments, including any Self-Evaluation Report, and any other information deemed relevant by the PCO. The PCO shall resolve disagreements between the ToM’s recommendations and the contractor’s comments/report regarding the evaluation. The PCO will provide a copy of the evaluation report, including the overall rating, to the contractor within five working days after completion of the evaluation.

(i) Contractor’s Review of the Evaluation Report: Contractors shall be given a minimum of 15 calendar days to submit comments, rebut statements, or provide additional information. The PCO shall consider the contractor’s submission and respond as appropriate. Although the PCO will consider the contractor’s comments, rebuttals, or additional information, the PCO may, or may not, change the overall rating. The decision to change the rating based on contractor input at this stage is solely at the discretion of the PCO.

(j) This performance evaluation does not replace any other requirement for evaluating contractor performance that may be required by the base contract, such as a Contractor Performance Assessment Reporting System (CPARS) report, or a Task Order Performance Evaluation (TOPE).



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TABLE 2: TASK PERFORMANCE EVALUATION CRITERIA AND STANDARDS

Criterion	UNSATISFACTORY	SATISFACTORY	EXCELLENT
Task Performance	Work product fails to meet Acceptable Quality Levels (AQLs) defined in Performance Requirements Summary Table (see SOW or elsewhere in the Task Order).	Work product routinely meets Acceptable Quality Levels (AQLs) defined in Performance Requirements Summary Table(see SOW or elsewhere in the Task Order).	Work product frequently exceeds Acceptable Quality Levels (AQLs) defined in Performance Requirements Summary Table (see SOW or elsewhere in the Task Order).
Staffing	Contractor provides marginally qualified or unqualified personnel. Lapses in coverage occur regularly.	Contractor provides qualified personnel. Lapses in coverage may occasionally occur and are managed per individual task order policy.	Contractor provides highly qualified personnel. Contractor reassigns personnel to ensure proper coverage. Actual lapses in coverage occur very rarely, if ever, and are managed per individual task order policy. Contractor ensures staff training remains current.
Timeliness	Contractor frequently misses deadlines, schedules, or is slow to respond to government requests or is non-responsive to government requests.	Contractor routinely meets deadlines, schedules, and responds quickly to government requests.	Contractor always meets deadlines, schedules, and responds immediately to government requests.
Customer Satisfaction	Fails to meet customer expectations	Meets customer expectations.	Exceeds customer expectations.

TABLE 3: CONTRACT MANAGEMENT PERFORMANCE EVALUATION CRITERIA AND STANDARDS

CRITERION	UNSATISFACTORY	SATISFACTORY	EXCELLENT
Problem Resolution	Problems are unresolved, repetitive, or take excessive government effort to resolve.	Problems are resolved quickly with minimal government involvement.	Problems are non-existent or the contractor takes corrective action without government involvement.
Responsiveness	Contractor's management is unresponsive to government requests and concerns.	Contractor's management is responsive to government requests and concerns.	Contractor's management takes proactive approach in dealing with government representatives and anticipates Government concerns.
Communications	Contractor often fails to communicate with government in an effective and timely manner.	Contractor routinely communicates with government in an effective and timely manner.	Contractor takes a proactive approach such that communications are almost always clear, effective, and timely.

TABLE 4: COST EFFICIENCY PERFORMANCE EVALUATION CRITERIA AND STANDARDS

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	CRITERION UNSATISFACTORY	SATISFACTORY	EXCELLENT
Cost Management	Contractor routinely fails to complete the effort within the originally agreed to estimated cost, i.e. cost overruns frequently occur.	Contractor routinely completes the effort within the originally agreed to estimated cost. Contractor provides measures for controlling all costs at estimated costs. Funds and resources are generally used in a cost-effective manner. No major resource management problems are apparent.	Reductions in direct costs to the Government below contract estimated costs are noteworthy. Contractor provides detailed cost analysis and recommendations to Government for resolution of problems identified. Funds and resources are optimally used to provide the maximum benefit for the funds and resources available. Documented savings are apparent.
Cost Reporting	Reports are generally late, inaccurate incomplete or unclear.	Reports are timely, accurate, complete and clearly written. Problems and/or trends are addressed, and an analysis is also submitted.	Reports are clear, accurate, and pro-active. Problems and/or trends are addressed thoroughly, and the contractor's recommendations and/or corrective plans are implemented and effective.

See Attachment - Performance Requirement Summary Table

### **CAR H11 – CONTRACTOR PERSONNEL SECURITY REQUIREMENTS (JAN 2010)**

a. In accordance with SECNAV M-5510.30 Chapters 5 and 6, all Contractor personnel that require access to Department of Navy (DON) information systems and/or work on-site are designated Non-Critical Sensitive/IT-II positions, which require an open investigation or favorable adjudicated National Agency Check (NACLC) by the Industrial Security Clearance Office (DISCO). Investigations should be completed using the SF- 85 Form and the SF-87 finger print card. An interim clearance can be granted by the company Security Officer and recorded in the Joint Personnel Adjudication System (JPAS). An open investigation or favorable adjudication is required prior to issuance of a Common Access Card (CAC) card or a badge providing access to NSWCCD sites and buildings. If an unfavorable adjudication is determined by DISCO all access will terminated.

b. Within 30 days after contract award, the Contractor shall submit a list of all Contractor personnel, including subcontractor employees, who will have access to DON information systems and/or work on-site at one of the NSWCCD sites. The Contractor shall e-mail [acquisition.nswccd.fct@navy.mil](mailto:acquisition.nswccd.fct@navy.mil) to obtain the excel file that outlines the required format and content of the list. The Contractor will provide each employee's first name, last name, contract number, the NSWCCD technical code, work location, whether or not the employee has a CAC card and/or swipe card, the systems the employee can access (i.e., NMCI, RDT&E), and the name of the Contractor's local point of contact, phone number and email address. The excel file shall be submitted via email to [acquisition.nswccd.fct@navy.mil](mailto:acquisition.nswccd.fct@navy.mil) and the Contracting Officer's Representative (COR) or Task Order Manager (TOM). Throughout the period of performance of the contract, the Contractor shall immediately provide an updated spreadsheet to [acquisition.nswccd.fct@navy.mil](mailto:acquisition.nswccd.fct@navy.mil) and the COR/TOM when any Contractor personnel changes occur.

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## SECTION I CONTRACT CLAUSES

Clause no. **HQ C-2-0037 ORGANIZATIONAL CONFLICT OF INTEREST (NAVSEA)(JUL 2000)** under the base contract applies to this task order.

### **52.217-9 Option to Extend the Term of the Contract (Mar 2000)**

(a) The Government may extend the term of this contract by written notice to the Contractor anytime within the period of performance of the task order provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 30 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 5 years.

(End of Clause)

### **52.222-2 -- Payment for Overtime Premiums (Jul 1990)**

(a) The use of overtime is authorized under this contract if the overtime premium does not exceed \*(TO BE INSERTED AT TIME OF AWARD) or the overtime premium is paid for work --

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall --

(1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

(End of Clause)

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## **252.204-7000 DISCLOSURE OF INFORMATION (DEC 1991)**

(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this contract or any program related to this contract, unless—

(1) The Contracting Officer has given prior written approval; or

(2) The information is otherwise in the public domain before the date of release.

(b) Requests for approval shall identify the specific information to be released, the medium to be used, and the purpose for the release. The Contractor shall submit its request to the Contracting Officer at least 45 days before the proposed date for release.

(c) The Contractor agrees to include a similar requirement in each subcontract under this contract. Subcontractors shall submit requests for authorization to release through the prime contractor to the Contracting Officer.

(End of clause)

## **52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (DEC 2010)**

(a) *Definitions.* As used in this clause—

“Commercial item” has the meaning contained Federal Acquisition Regulation 2.101, Definitions.

“Subcontract” includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c)

(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (Apr 2010) (Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)), if the subcontract exceeds \$5,000,000 and has a performance period of more than 120 days. In altering this clause to identify the appropriate parties, all disclosures of violation of the civil False Claims Act or of Federal criminal law shall be directed to the agency Office of the Inspector General, with a copy to the Contracting Officer.

(ii) 52.203-15, Whistleblower Protections Under the American Recovery and Reinvestment Act of 2009 (Jun 2010) (Section 1553 of Pub. L. 111-5), if the subcontract is funded under the Recovery Act.

(iii) 52.219-8, Utilization of Small Business Concerns (Dec 2010) (15 U.S.C. 637(d)(2) and (3)), if the subcontract offers further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$650,000 (\$1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(iv) 52.222-26, Equal Opportunity (Mar 2007) (E.O. 11246).

(v) 52.222-35, Equal Opportunity for Veterans (Sep 2010) (38 U.S.C. 4212(a));

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- (vi) 52.222-36, Affirmative Action for Workers with Disabilities (Oct 2010) (29 U.S.C. 793).
- (vii) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (Dec 2010) (E.O. 13496), if flow down is required in accordance with paragraph (f) of FAR clause 52.222-40.
- (viii) 52.222-50, Combating Trafficking in Persons (Feb 2009) (22 U.S.C. 7104(g)).
- (ix) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. App. 1241 and 10 U.S.C. 2631), if flow down is required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of Clause)

**NOTE: REGARDING 52.244-2 -- SUBCONTRACTS (JUNE 2007) - ALTERNATE I (JUNE 2007), TEAMING ARRANGEMENT WITH ANY FIRM NOT INCLUDED IN THE CONTRACTOR'S BASIC IDIQ CONTRACT MUST BE SUBMITTED TO THE BASIC MAC CONTRACTING OFFICER FOR APPROVAL. TEAM MEMBER (SUBCONTRACT) ADDITIONS AFTER TASK ORDER AWARD MUST BE APPROVED BY THE TASK ORDER CONTRACTING OFFICER.**

**252.239-7000 PROTECTION AGAINST COMPROMISING EMANATIONS (JUN 2004)**

(a) The Contractor shall provide or use only information technology, as specified by the Government, that has been accredited to meet the appropriate information assurance requirements of—

(1) The National Security Agency National TEMPEST Standards (NACSEM No. 5100 or NACSEM No. 5100A, Compromising Emanations Laboratory Test Standard, Electromagnetics (U)); or

(2) Other standards specified by this contract, including the date through which the required accreditation is current or valid for the contract.

(b) Upon request of the Contracting Officer, the Contractor shall provide documentation supporting the accreditation.

(c) The Government may, as part of its inspection and acceptance, conduct additional tests to ensure that information technology delivered under this contract satisfies the information assurance standards specified. The Government may conduct additional tests—

(1) At the installation site or contractor's facility; and

(2) Notwithstanding the existence of valid accreditations of information technology prior to the award of this contract.

(d) Unless otherwise provided in this contract under the Warranty of Supplies or Warranty of Systems and Equipment clause, the Contractor shall correct or replace accepted information technology found to be deficient within 1 year after proper installations.

(1) The correction or replacement shall be at no cost to the Government.

(2) Should a modification to the delivered information technology be made by the Contractor, the 1-year period applies to the modification upon its proper installation.

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(3) This paragraph (d) applies regardless of f.o.b. point or the point of acceptance of the deficient information technology.

(End of clause)

**252.239-7001 INFORMATION ASSURANCE CONTRACTOR TRAINING AND CERTIFICATION (JAN 2008)**

(a) The Contractor shall ensure that personnel accessing information systems have the proper and current information assurance certification to perform information assurance functions in accordance with DoD 8570.01-M, Information Assurance Workforce Improvement Program. The Contractor shall meet the applicable information assurance certification requirements, including—

(1) DoD-approved information assurance workforce certifications appropriate for each category and level as listed in the current version of DoD 8570.01-M; and

(2) Appropriate operating system certification for information assurance technical positions as required by DoD 8570.01-M.

(b) Upon request by the Government, the Contractor shall provide documentation supporting the information assurance certification status of personnel performing information assurance functions.

(c) Contractor personnel who do not have proper and current certifications shall be denied access to DoD information systems for the purpose of performing information assurance functions.

(End of clause)

**5252.242-9115 TECHNICAL INSTRUCTIONS (APR 1999)**

(a) Performance of the work hereunder may be subject to written technical instructions signed by the Contracting Officer's Representative specified in Section G of this contract. As used herein, technical instructions are defined to include the following:

(1) Directions to the Contractor which suggest pursuit of certain lines of inquiry, shift work emphasis, fill in details or otherwise serve to accomplish the contractual statement of work.

(2) Guidelines to the Contractor which assist in the interpretation of drawings, specifications or technical portions of work description.

(b) Technical instructions must be within the general scope of work stated in the contract. Technical instructions may not be used to: (1) assign additional work under the contract; (2) direct a change as defined in the "CHANGES" clause of this contract; (3) increase or decrease the contract price or estimated contract amount (including fee), as applicable, the level of effort, or the time required for contract performance; or (4) change any of the terms, conditions or specifications of the contract.

(c) If, in the opinion of the Contractor, any technical instruction calls for effort outside the scope of the contract or is inconsistent with this requirement, the Contractor shall notify the Contracting Officer in writing within ten (10) working days after the receipt of any such instruction. The Contractor shall not proceed with the work affected by the technical instruction unless and until the Contractor is notified by the Contracting Officer that the technical instruction is within the scope of this contract.

(d) Nothing in the foregoing paragraph shall be construed to excuse the Contractor from performing that portion of the contractual work statement which is not affected by the disputed technical instruction.

(End of Clause)

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## **SECTION J LIST OF ATTACHMENTS**

Cost Summary Format

CAR-H10 Performance Requirements

DD254 4-18-2011

DD254 Revision 2(11-23-2015)